DOCUMENT RESUME

ED 143 7?2 UD 017 278

AUTHOR	Ostrom, Elinor; And Others
TITLE	Policing Metropolitan America.
INSTITUTION	National Science Foundation, Washington, D.C. RANN Program.
PUB DATE	77
NOTE	59p.
AVAILABLE FROM	Superintendent of Documents, U.S. Govt. Printing Office, Washington, D.C. 20402 (Stock No. 038-000-00317-8)
EDRS PRICE	MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS	Agency Role; *Community Services; *Delivery Systems; *Interagency Cooperation; Metropolitan Areas; *Police; *Police Community Relationship; *Social Services; Welfare Services

ABSTRACT

This study concerns police services delivery in small-to-medium sized metropolitan areas. It addresses three broad issues: the producers of police services, agency cooperation and service delivery, and agency size and service delivery. Each issue is treated in a separate chapter and includes a discussion of several related questions. The 80 geographic areas studied varied in size, population density, and types of communities. The report's findings challenge several assumptions which have been the basis of many proposals for police reorganization. The findings show that policing metropolitan areas can be divided among separately organized agencies as well as among the personnel of a single police department. It is concluded that the diversity in size of agencies and the different combinations of services they produce are not necessarily wasteful or confusing. There appears to be little duplication by small-to-medium sized police agencies. Most police departments seem to know what services they are responsible for and where to deliver them. Instances of duplication, of confusion and of noncooperation are found, but they are not found to be the common pattern. It is suggested that reorganization of metropolitan policing needs to be based on a realistic assessment of the resources and needs of each particular metropolitan area. (Author/AM)

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POLICING METROPOLITAN AMERICA

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UD017278

Report Prepared for:
NATIONAL SCIENCE FOUNDATION
RESEARCH APPLICATIONS DIRECTORATE
RANN — RESEARCH APPLIED TO NATIONAL NEEDS

POLICING METROPOLITAN AMERICA

by

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Washington, D.C. 20402
Stock No. 038-000-00317-8

MAJOR FINDINGS

This report challenges several assumptions which have been the bases of many proposals for police reorganization. The findings show that policing metropolitan areas can be divided among separately organized agencies as well as among the personnel of a single police department. The division can be either geographic or functional; that is, each agency may serve its own separate jurisdiction, or each agency may supply only one or a few related services. Whether or not departments should decentralize, consolidate, or remain the same will depend upon the service needs and the resources of each particular metropolitan area.

The data on which these conclusions are based were collected in 80 metropolitan areas. All agencies conducting general area patrol, traffic patrol, traffic accident investigation, residential burglary investigation, or homicide investigation for residents of each Standard Metropolitan Statistical Area were included. More than two thirds of these 1,454 producers are municipal police departments. Other types of agencies also conduct one or more of these services. These include county sheriffs, police, and prosecutors; State police, highway patrols, and bureaus of investigation; campus, park, housing authority, hospital, and other "special district" police; and Federal law enforcement officers serving both military and civilian Federal reservations. Data were also obtained on the agencies supplying radio communications, entry-level training, chemical analysis of evidence, and adult pre-trial detention to the more than 1,400 direct service producers. Data were obtained from police agencies through personal interviews and inspection of documents supplemented by telephone and mail communication.

The metropolitan areas studied ranged in population size from fewer than 60,000 to more than 1,300,000 residents, and from two direct service police agencies to 91 per metropolitan area.

The erroneous, but common, picture of metropolitan police agencies is that they are too numerous and diverse to work together. Since municipal departments are most numerous in producing direct services, they are especially under fire. The many separate agencies are seen as isolated from each other, as acting independently, and as limiting the opportunities for pursuit of suspects and for mobilizing large numbers of officers in response to crises. That picture is largely inaccurate.

Duplication in police services delivery is not common. Few police agencies serving the same community act in isolation from each other. Instead, agencies patrolling the same area usually alternate their patrols by time of day, type of thoroughfare or public place, or type of clientele. Agencies investigating crimes within the same jurisidiction also rarely act in isolation from each other. Rather, they coordinate their investigations. Police agencies also interact in the supply and use of auxiliary services. Most police agencies serving metropolitan areas obtain entry-level training, chemical analysis of evidence, and pre-trial detention of suspects from other agencies. This accounts for the great diversity in organizational arrangements within police departments.

The existence of numerous jurisdictional boundaries in a metropolitan area need not limit fresh pursuit of suspects or inter-agency assistance in a crisis. Forty-one of the 50 States have legislation explicitly authorizing *inter-State* fresh pursuit. *Intra-State* fresh pursuit is explicitly authorized in 39 States and practiced under the inter-State authorization in others. Mutual aid is common. Approximately nine out of ten patrolling agencies in metropolitan areas give or receive emergency assistance outside their own jurisdictions, and almost two out of five local patrol agencies use some type of deputization arrangement. This does not imply that more effective working relationships cannot be developed. But we do find much more cooperation and much less isolation than has been often assumed.

Some common assumptions about department size are also erroneous. Small departments are thought to dominate service delivery, to "waste" resources by duplicating administrative personnel, and to fail to provide complete service to the communities they serve.

The data reported in this study indicate that small departments are indeed numerous, but, in fact, they supply only 10 percent of the 10 P.M.

on-street patrol force. It is the large departments which employ most of the police officers and serve most of the residents of metropolitan areas. Small departments seem to be less "wasteful." They generally get a *higher* proportion of their officers "out on the street" than do the larger departments. We find that the median citizen-to-patrol officer ratio at 10 P.M. is less than 2,400 to 1 for municipal departments with 5 to 10 officers, and more than 4,200 to 1 for municipal departments with more than 150 officers. It is the large departments which are likely to have a higher proportion of personnel in administrative positions. While small departments in many cases do not themselves supply all police services to the communities they serve, a full range of services is available almost without exception. Specialist agencies, or larger full-service police departments with overlapping jurisdictions, supply the services which are not supplied by small, local agencies. We can consider the small departments as "patrol specialists." They may be a useful organizational alternative in some metropolitan areas.

These findings should not be interpreted as demonstrating that small departments are more effective at protecting the people they serve. The consequences of increased numbers of officers on patrol remain to be demonstrated.

The police services discussed in this report are organized in many different ways in this sample of small- to medium-sized metropolitan areas. All generalizations about police service delivery in these areas have their exceptions. But the general patterns run contrary to most common assumptions about police in metropolitan areas. Coordination and cooperation are common among diverse departments. Small departments constitute a small proportion of the total patrol force in most SMSAs, but most supply more officers on patrol per capita than their larger counterparts. Citizens in all parts of each metropolitan area were supplied with each of the services we studied.

Police work can be divided either among the personnel of a single agency or among separately organized agencies or in both ways. Coordination of policing occurs between agencies, as well as within them. The appropriateness of any particular mode of organization depends on the distribution of needs and resources within a particular metropolitan area.

ACKNOWLEDGMENTS

The authors owe an enormous debt of gratitude to many people. All over the country, busy public officials have taken time from their schedules to meet with us, to provide us with data, and to read our preliminary reports. We hope that this report provides them with a composite overview of police services delivery which adds to the knowledge that each has so generously contributed to this study. We wish to thank all of these individuals for their help and kindness.

We have also been helped by the work of a very active, enthusiastic, incisive, and articulate National Board of Consultants:

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The Board has met six times since the project began. At each meeting, the members have actively reviewed our plans and made many important contributions to the project.

The three principal investigators are also deeply appreciative of the contributions of staff members at the Workshop in Political Theory and Policy Analysis, Indiana University, and at the Center for Urban and Regional Studies, University of North Carolina. The research staff has contributed actively to all stages of the research design, development of research instruments and field procedures, and to the actual field work itself. Many of the innovative aspects of this study result from the valuable contributions of this very capable group:

Frank Anechiarico
Paula Baker
Thomas Banes
Mike Binford
Frances Bish
Ken Cahill
Donald Coles
Gary Gray
Vicki Greene
Phillip Gregg
Thomas Kramer
Stephen Mastrofski
John McIver
Gary Miller
Marc Mishkin
Darwin Morgan
Nancy M. Neubert
Stephen Percy
Barry Price
Marlene Rodenbeck
Eric Scott
Elaine Sharp
William Tabor
Ronald Tedrow
Fred Towe
Larry Wagner
Dan Wilson
Carl Young

Mary Zielinski, Marsha Brown, Mary Wagner, Mary Turk, Phyllis McNamara, and Sally Bernard have typed and retyped the various drafts of this volume with skill, good will, and concern. Mary Rosenson has edited this report. Stephen Percy and Spencer Ballard have run and rerun the tables for this report. Vincent Ostrom has read and commented on each draft of this report.

Readers interested in a more detailed report from this project should refer to *Patterns of Metropolitan Policing* by Elinor Ostrom, Roger B. Parks, and Gordon P. Whitaker (with chapters contributed by Frances Bish, Stephen Mastrofski, John McIver, Elaine Sharp, and Larry Wagner). *Patterns of Metropolitan Policing* will be published in 1977 by Ballinger Publishing Company.

This report was prepared with the support of National Science Foundation Grant GI 43915. Any opinions, findings, conclusions, or recommendations expressed in it are those of the authors and do not necessarily reflect the views of NSF.

The research project was one of four funded by the Research Applied to National Needs (RANN) Division of the National Science Foundation under Program Solicitation 73-28 to study the organization of service delivery in metropolitan areas for these services: police, fire, public health, and solid waste. Publications from the other studies funded under this solicitation may be obtained from:

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CONTENTS

		Page
CHAPTER I	WHAT THIS REPORT IS ABOUT	1
	Why This Report?	1
	Traditional Approach to Police Organization	1
	The Approach of This Report	1
	Two Views of Reorganization	1
	How This Report is Organized	2
	What Did We Study?	2
	The Police Services Studied	3
	The Metropolitan Areas Studied	3
	Data Collection	5
CHAPTER II	PRODUCERS OF POLICE SERVICES	7
	Agencies Producing Direct Services	7
	Direct Service Producers in Each SMSA	7
	Agencies Producing Auxiliary Services	12
	Auxiliary Service Producers in Each SMSA	14
CHAPTER III	AGENCY COOPERATION AND SERVICE DELIVERY	15
	Duplication of Services	15
	Alternation of Direct Services	15
	Coordination of Direct Services	17
	Duplication of Direct Services	19
	Duplication, Coordination, and Alternation of Auxiliary Services	19
	Duplication and Diversity	20
	Fresh Pursuit	20
	Intra-State Fresh Pursuit	20
	Standards of Knowledge	22
	Inter-State Fresh Pursuit	22
	Emergency Assistance, Mutual Aid Agreements, and Deputization	24
	Patterns of Inter-Agency Assistance	24
	Mutual Aid Agreements	24
	Patterns of Deputization	25
	Participation in Emergency Assistance	25
	Cooperation, Not Isolation	26
CHAPTER IV	AGENCY SIZE AND SERVICE DELIVERY	29
	Agency Size and Services Produced	29
	Agency Size and Personnel Deployment	32
	Agency Size and Patrol Density	32
	Do Small Police Agencies Dominate Service Delivery?	34
	Agency Size Reconsidered	36
CHAPTER V	OPTIONS FOR ORGANIZING METROPOLITAN POLICING	39
APPENDIX A	GLOSSARY OF TERMS	43
APPENDIX B	THE 80 METROPOLITAN AREA SAMPLE	45
APPENDIX C	OTHER REPORTS OF THE POLICE SERVICES STUDY	48

Maps

Number		Page
1.1	The 80 Metropolitan Areas and the 10 Federal Regions	4
3.1	Distribution of Intra-State Fresh Pursuit Legislation	21
3.2	Distribution of Inter-State Fresh Pursuit Legislation	23

Figures

Number		Page
2.1	Distribution of Direct Services in 80 SMSAs by Type of Agency	8
2.2	Distribution of Auxiliary Services in 80 SMSAs by Type of Agency	13
3.1	Alternation of Traffic Patrol in 80 SMSAs	16
3.2	Coordination of Homicide Investigation in 80 SMSAs	18
3.3	Duplication of Patrol in 80 SMSAs	19
4.1	Average Percent of Sworn Officers Assigned to Patrol, Other Direct Services, Auxiliary Services, and Administration by Municipal Police Agencies of Different Sizes	33

Tables

Number		Page
2.1	Numbers and Types of Producers Supplying Direct Police Services in the 80 Metropolitan Areas	9
2.2	Number of Direct Service Producers in an SMSA Who Produce Each of the Direct Services by Region	11
2.3	Number of Direct Service Producers in an SMSA Who Produce Each of the Direct Services by Size of SMSA	11
2.4	Auxiliary Services Supplied by Direct Service Producers	12
2.5	Number of Auxiliary Service Producers in an SMSA Who Produce Each of the Auxiliary Services by Size of SMSA	14
3.1	Alternation, Coordination, and Duplication of Direct Police Service Delivery in 80 SMSAs	17
3.2	Alternation, Coordination, and Duplication of Auxiliary Police Service Delivery in 80 SMSAs	20
3.3	Percent of Local Patrol Producers Who Give or Receive Assistance and Who Are Members of Formal Mutual Aid Agreements	24
3.4	Assistance by Size of Producer	26
4.1	Production of Additional Services by Local Patrol Producers	30
4.2	Patrol Deployment and Density by Local Patrol Producers	34
4.3	Size of Local Patrol Producers by Region	35
4.4	Municipal Police Departments By Size and Proportion of On-Street Patrol Force (10 P.M.)	36

(1)

Chapter I

WHAT THIS REPORT IS ABOUT

WHY THIS REPORT?

Suppose you are a police chief, a county sheriff, or a campus security director—

Suppose you are a city manager, a city planner, a member of a city council, or a county or regional council—

Suppose you are a State police administrator or work for the State criminal justice planning agency—

Suppose you are a citizens' group representative or a state legislator—

And suppose your mayor or your governor establishes an executive commission on the reorganization of the criminal justice system. The job of this commission is to recommend organizational changes. You are told that the city council or the State legislature will try to implement these reforms. As a participant in such a commission, what approach can you take to examine the problems of police services delivery? How will you produce a practical list of organizational changes you can expect to increase the effectiveness of the particular police agency or agencies with which you are concerned?

Traditional Approach to Police Organization

In the past, most commissions have looked at the American police system as a collection of fragmented jurisdictions. They have seen that many of the departments serving those jurisdictions did not supply all of the services which are thought essential to effective policing. They also observed that those departments which did supply such services within their own organizational structure tended to be much larger than those which did not supply all police services. Most have, therefore, presented the commission with this problem to solve: How can we reorganize existing jurisdictions and departments so that each will be capable of supplying all necessary police services? The usual prescription is consolidation.

The Approach of This Report

When you read this book you will see that we view metropolitan policing in America as an industry with agencies delivering a variety of police services directly to citizens. In producing those direct services, police agencies use a variety of auxiliary services which they either produce for themselves or obtain from other agencies. We find that police agencies and citizens already have available to them most of the services deemed essential to effective police activity. We will point out that while many police departments do not themselves supply all of these services, *the police industry as a whole does*. We will see that many kinds of organizational structures have developed, both geographically and functionally, to supply the essential services.

So you could pose the question to the commission in this way: Which organizational and inter-organizational forms are more effective in supplying essential police services to citizens? When the commission finds answers to this question, then you can recommend improvements in organization by finding out how you can reorganize the *existing* police industry to capture the benefits of the more effective organizational and inter-organizational forms.

Two Views of Reorganization

Posing the problem in these different ways leads you to consider different solutions. The first way—the traditional approach—involves application of a common prescription to all types of police services delivery. The second way of posing the problem and seeking solutions alerts you to the possibility that various means can be used to achieve effective police services. The second approach to organizational change is supported by the findings contained in this book.

We must note that our alternative way of looking at police services delivery does *not* imply that "what is" is "what ought to be"! When we say that a great deal of organizational diversity

exists and that there are now regular and systematic relationships between police agencies, we are not saying that this diversity and inter-agency cooperation are necessarily as effective as possible. However, any attempt at purposeful change must start with a relatively accurate picture of how things *are*. Only then can you deal with how to change the system to make it better. There may be too much fragmentation in the organization of some services. There may be too much consolidation in the organization of other services. Changes in both directions may be helpful. Organization appropriate for one area may be infeasible or ineffective in a place with different resources and different service needs. We can only find out which types of changes will improve police services after we understand the way things are now and the range of alternatives that may be available.

HOW THIS REPORT IS ORGANIZED

We address three broad issues in this report. Each is treated in a separate chapter and includes discussion of several related questions. The three issues and major questions are these:

- **Producers of Police Services**

  What types of agencies produce police services directly for citizens of metropolitan areas?

  How many producers are there for each direct service?

  What types of agencies produce auxiliary services for police agencies serving metropolitan areas?

  How many producers are there for each auxiliary service?

- **Agency Cooperation and Service Delivery**

  How much duplication of service delivery is there in metropolitan areas?

  What kinds of arrangements have been developed to reduce duplication of service delivery?

  What legal authority is there for fresh pursuit beyond jurisdictional boundaries?

  How much mutual assistance do local police agencies give and receive in metropolitan areas?

  How common are mutual aid agreements and cross-deputization?

  What kinds of agencies give mutual assistance?

  What kinds of agencies receive mutual assistance?

- **Agency Size and Service Delivery**

  How common are local "full-service" police departments in metropolitan areas?

  What sorts of specialized police service producers are there?

  How are a full range of services supplied in areas not served by "full-service" departments?

  How is the size of a local police agency related to its utilization of personnel?

  What share of metropolitan policing is the responsibility of small, local departments?

On the basis of our answers to these questions, we conclude that the diversity in size of agencies and the different combinations of services they produce are not necessarily wasteful or confusing. There appears to be little duplication by small- to medium-sized police agencies. Most police departments seem to know what services they are responsible for and where to deliver them. Jurisdictional boundaries are generally open for fresh pursuit and for mutual assistance in emergencies. Instances of duplication, of confusion, and of noncooperation are found, of course, but they are *not* the common pattern. Reorganization of metropolitan policing needs to be based on a realistic assessment of the resources and needs of each particular metropolitan area.

WHAT DID WE STUDY?

Many service activities are assigned to law enforcement agencies in the United States. We chose several services to study because we could not afford to obtain information on all of the producers of all of them. Similarly, we could not collect the kind of information necessary for this study for all of the metropolitan areas in the country. We selected for study 80 metropolitan areas which include a variety of economic activities, residence patterns, and police agencies. They are representative of all but the largest metropolitan areas and include portions of the New York, Chicago, and Los Angeles megalopolises.

So that you can evaluate the information we collected and where and how it was obtained, we review the definitions of the services we studied, the sample of metropolitan areas we studied, and

the procedures we used to gather and verify information on the delivery of our selected services in those metropolitan areas.

You will find a glossary of terms used in this study in Appendix A.

The Police Services Studied

Police perform a variety of tasks, some of which are *direct services* to citizens. We examined the delivery of three direct services:

- Patrol
- Traffic Control
- Criminal Investigation

These three services include some of the more time consuming and/or higher priority police services to citizens. For our purposes, delivery of these services involves activity by officers who have *extraordinary powers of arrest* in the conduct of the service, thus excluding private watchmen, guards, and private investigators. We define the three direct services as follows:

Patrol is organized surveillance of public places within a specified territory and response to reports of suspected criminal activities for the purpose of preventing crime, apprehending offenders, or maintaining public order. Officers assigned to patrol also typically respond to emergencies and other types of noncriminal calls.

Criminal investigation is activity undertaken to identify the persons suspected of alleged criminal acts, to gather evidence for criminal proceedings, or to recover stolen goods. Because the agencies and the methods of investigation differ with different crimes, depending on their degree of seriousness, we specifically focused our attention on investigation of *residential burglary* and investigation of *homicide*. Residential burglary is an often encountered felony. In contrast, homicide occurs less frequently, but is generally regarded as a more serious offense.

Traffic control includes the monitoring of vehicular traffic and the investigation of traffic accidents. Because *traffic patrol* assignments may differ from *traffic accident investigation* assignments, we examined the delivery of each.

Auxiliary services are used by police agencies in their production of direct services. They are services used by the producers of policing rather than direct services to citizens. We gathered data on these four:

- Radio Communication
- Adult Pre-Trial Detention
- Entry-Level Training
- Crime Laboratory

Some of the police agencies which produce direct services also produce some of their own auxiliary services. Some do not produce auxiliary services for themselves, but obtain them from other direct service police agencies. Still other direct service agencies receive auxiliary services from specialized agencies which do not produce direct services (e.g., community colleges and technical institutes, hospital laboratories, answering services, and fire departments).

The four auxiliary services studied are defined as follows:

Radio communication is the relaying of requests for police assistance to officers in the field and the receipt of radioed requests for information or assistance from officers in the field.

Adult pre-trial detention is the holding of an adult after arraignment but prior to final court disposition of a case. Only agencies empowered to hold individuals in their facilities for more than 24 hours are included. We did not consider agencies that had temporary "lock-ups" as producers of adult pre-trial detention services.

Entry-level training is the department-required training of recruits for a direct service police agency. We do not disregard State requirements for entry-level training. For many departments, the State minimum is the departmental requirement. For some, the departmental requirement greatly exceeds the State minimum.

Crime laboratory analysis is the processing of evidence by persons whose testimony is accepted for presentation in court. Many kinds of laboratory analyses are required in criminal and accident investigation. We have limited our attention to the identification of *narcotics* and the *chemical analysis* of such substances as blood and hair.

The Metropolitan Areas Studied

This study concerns police services delivery in small- to medium-sized metropolitan areas. In 1970 the U.S. Census Bureau identified 200 single-State Standard Metropolitan Statistical Areas (SMSAs) with populations of less than 1.5 million.[1] More than 67 million Americans, one-third of the U.S. population, lived in these 200 metropolitan areas. We selected 80 of these SMSAs in a stratified, random sample.[2] Metropolitan areas in 31 States were included in the sample. Map 1.1 indicates the State and

MAP 1.1

The 80 Metropolitan Areas and the 10 Federal Regions

Federal administrative region in which each of these 80 metropolitan areas is located.

The 80 SMSAs include a wide variety of metropolitan area sizes, population densities, and types of communities. Three of them have more than one million residents. Ten have fewer than 100,000 residents. Population densities range from 32 persons per square mile to more than 3,000 persons per square mile.[3] A list of the 80 SMSAs and their populations is included as Appendix B of this report.

Major cities are included in our sample of 80 SMSAs. Two cities have more than 500,000 residents within city limits and another nine have between 250,000 and 500,000 within city limits.[4] Twenty-three cities have between 100,000 and 250,000 residents.

This study also includes the full range of other types of areas which police agencies serve, including smaller central and suburban cities and towns (about 90 percent of the municipal police producers in the 80 metropolitan areas serve cities having fewer than 50,000 residents, and about 63 percent of these producers serve cities with populations of 5,000 or less), unincorporated county areas near more built-up cities, and rural areas.

The 80 SMSAs include a wide variety of commercial and residential areas. Many include large agricultural tracts or timberlands. Some of the SMSAs have major military installations. Others are dominated by major universities. Ten include the State capital. Together, the 80 metropolitan areas represent the many types of areas in which Americans live, work, and receive police services.

Data Collection

Police agencies themselves were the major source of data for this report. More than 250 person-days were spent in the 80 SMSAs during the period of June 1974 to May 1975. Direct, in-person interviews were conducted with members of about 600 police producers. Often, several members of a police department were interviewed to obtain the needed information. Approximately 300 additional producers were contacted by phone. Over 300 agencies responded to mail questionnaires, and many of these agencies were also telephoned in order to verify information. Thus, data concerning 1,200 producers were collected directly from each producer.

Officers of these producers were also able to provide information about other agencies serving their areas. Information on some auxiliary service producers came only from agencies using the service; for example, we learned about training academies located outside the 80 SMSAs from police departments who used these academies for recruit training. Sheriffs were often very helpful in providing information about personnel and services performed by smaller agencies within their counties. Whenever possible, we obtained information directly from an agency. But time limitations and limited resources for field work precluded our obtaining information directly in all cases.

We also visited the State capital of each State in which one of the 80 SMSAs was located, to look for repositories of data already collected. This minimized the burden of data collection on local agencies. More than 40 person-days were spent in State capitals. We found State planning agencies, State training councils, and other State agencies to be very helpful and, in some cases, very valuable sources of detailed and current information. The headquarters of the State Police or State Highway Patrol frequently provided full data for all units serving the metropolitan areas in that State. The data reflect police organization and staffing for 1974.

Data on the service areas were obtained from the 1970 U.S. Decennial Census and the 1973 Census Bureau estimates. Because the census data are generally aggregated to the boundaries of local governmental units, it was often necessary for us to calculate the *service area's* size by subtracting from the size of a unit (e.g., a city) the territories of the various service area enclaves within the city limits. For example, the city of Fayetteville, North Carolina, had a 1973 population of 58,099. The Fayetteville State University campus (within the city of Fayetteville) had 1,643 residents. This latter figure is the size of the resident population served by the Fayetteville State University campus police. The Fayetteville city police patrol a resident population of 58,099 minus 1,643 or 56,456. A similar "remaindering" process was required for most counties and many cities in this study.

State laws were researched by law students using the library of the Indiana University School of Law. Legal experts in each State were then asked to check the accuracy and currency of the legal findings. Information was obtained from the State statutes for all 50 States as of a cut-off date of June 30, 1974.

NOTES TO CHAPTER I

1. A Standard Metropolitan Statistical Area is a designation specified by the U.S. Bureau of the Census in order to identify systematically metropolitan areas in the United States. An SMSA is defined (except in the New England States) as a county or a group of contiguous counties containing at least one central city of 50,000 inhabitants or more, or several cities with a combined population of at least 50,000. Contiguous counties are included in an SMSA if they meet the Census Bureau criteria related to social and economic relationships to the central city (e.g., suburban residents commuting to work in the central city). In the New England States, SMSAs consist of clusters of contiguous cities and New England towns which meet the same SMSA criteria as counties in other parts of the United States. Single-State SMSAs are those which are located solely within the boundaries of one State. They do not cross State lines.

2. The sample was stratified by the 10 regions used for administrative purposes by the U.S. Department of Justice and by other Federal agencies. We wanted to be sure to include some SMSAs from each of the 10 different regions in our sample of 80, so that important State and regional variations might be observed. Stratification in sampling permits this.

3. The distribution of population sizes and densities across the 80 SMSAs closely reflects the full 200 SMSAs from which we selected our sample. In the 200 SMSAs, population ranged from 55,959 to 1,421,869. Population density ranged from 19 persons per square mile to 12,963 persons per square mile. The median-sized SMSA had a 1970 population of 219,743. Fifty-five percent had 1970 populations of less than 250,000; 20 percent had more than 500,000. Metropolitan areas in the Midwest were generally smaller in size, while those in the West tended to be larger. Metropolitan areas in the Northeast were most densely populated, and those in the West generally had much lower population densities. This results in part from the definition of SMSAs. In the New England portion of the Northeast region, the Census Bureau includes a town in an SMSA only if its population density is greater than 100 persons per square mile. In other parts of the country, entire counties are included in an SMSA if *any* part of the county is included.

4. The two cities with more than 500,000 residents are Phoenix and San Antonio. The nine cities with between 250,000 and 500,000 residents are: Akron, Ohio; Austin, Texas; Birmingham, Alabama; El Paso, Texas; Nashville-Davidson County, Tennessee (treated by the Census Bureau as a consolidated city-county); Rochester, New York; San Jose, California; Tampa, Florida; and Tulsa, Oklahoma.

Chapter II

PRODUCERS OF POLICE SERVICES

Several types of police agencies patrol, control traffic, and investigate reports of residential burglary and homicide in metropolitan areas. Many of these agencies are local, serving only jurisdictions within a single SMSA. A few are State or Federal agencies, however, with personnel conducting police services in more than one metropolitan area. Each State and Federal agency is coded and counted as a producer in *each* of the metropolitan areas it serves. There are 1,454 producers of these direct services in the 80 SMSAs we studied. When our interest is in the delivery of police services *within* each metropolitan area, this count of producers is more appropriate than a count of separate agencies involved in service production. We first discuss the agencies supplying police services and then consider the service producers within each SMSA.

Whenever direct services are produced by agencies headquartered outside the SMSA, personnel from such agencies work within the metropolitan area. In many States, traffic patrol and accident investigation on major thoroughfares crossing metropolitan areas are conducted by a State agency. Some metropolitan areas receive patrol or criminal investigation from State agencies. Federal agencies also conduct patrol, traffic control, and criminal investigation on Federal reservations in some metropolitan areas. In all these cases, the State or Federal agency is a producer of metropolitan police services in each of the metropolitan areas where its officers work.

Auxiliary service producing agencies do not always conduct their services in the metropolitan areas whose police agencies they serve. Many local police departments, for instance, send recruits to training academies located outside their metropolitan area. These training academies have been included in this study because they produce entry-level training for local departments in the SMSAs we studied. Any of the four auxiliary services—chemical analysis of evidence, recruit training, pre-trial detention, and radio communications—may be produced by an agency located outside the metropolitan area it serves.

Some agencies conduct patrol, traffic patrol, traffic accident investigation, and investigation of residential burglary and homicide. Other agencies produce only one or two of these services. Many agencies supply none of the four auxiliary services, while some of those who produce auxiliary services conduct none of the direct police services.

AGENCIES PRODUCING DIRECT SERVICES

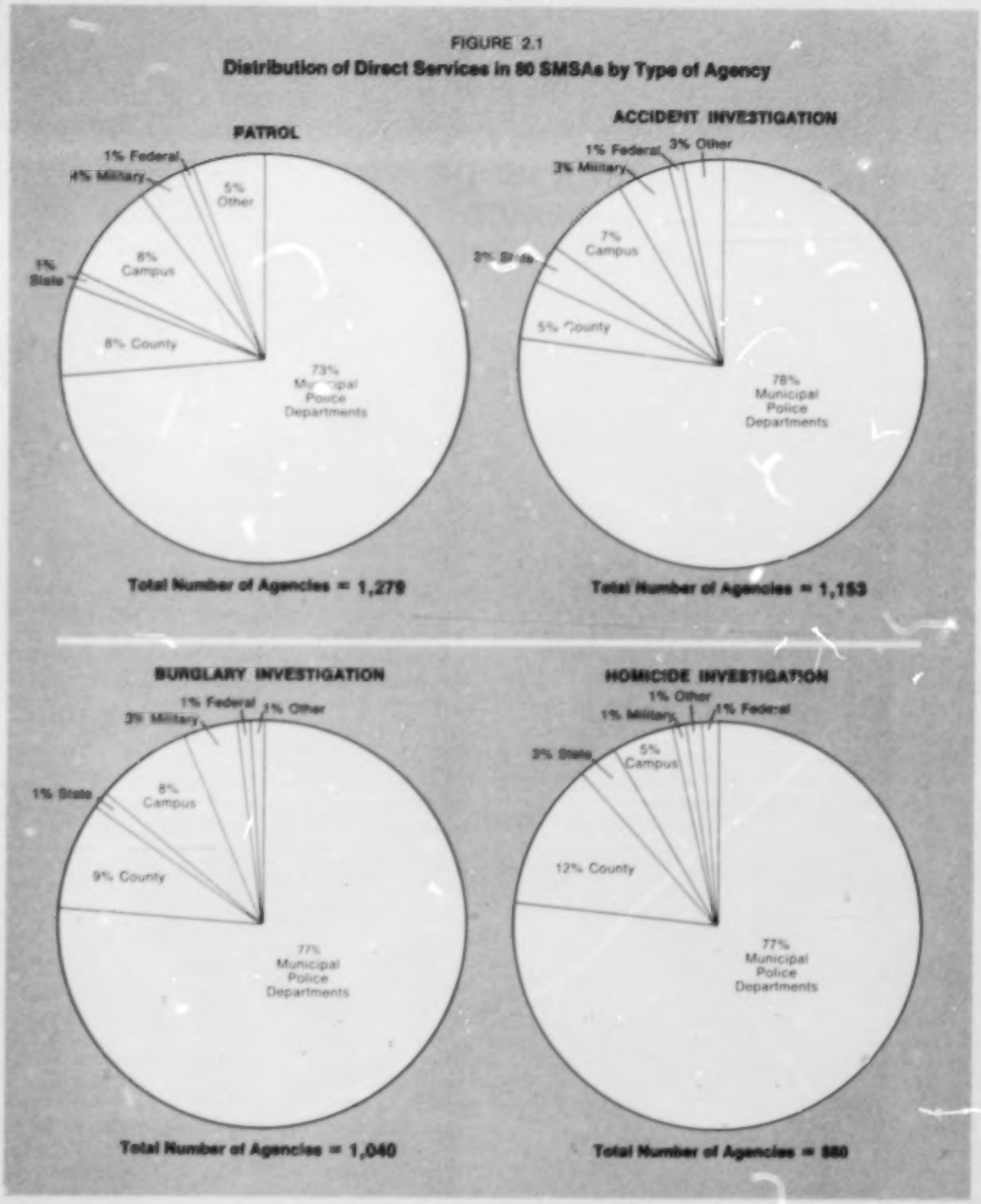
Different types of *agencies* conduct different services. For example, there are almost 1,300 agencies supplying patrol, but fewer than 900 conducting homicide investigations. Municipal police departments account for more than 70 percent of the agencies that conduct each of the direct services we studied (Figure 2.1). The proportion of other types of agencies varies according to the service. County police and sheriffs are about 10 percent of the patrol and burglary and homicide investigation agencies, but only 5 percent of the traffic accident investigation agencies. State law enforcement agencies, in contrast, are about 3 percent of the traffic accident investigation and homicide investigation agencies, and only 1 percent of the agencies that conduct the other services. Campus police agencies represent 5 or more percent of the total for each of these services. Military law enforcement agencies account for another 3 percent or so of the agencies conducting these services. Other Federal agencies account for only about 1 percent for each service. Other local agencies are about 5 percent of the patrol and traffic accident investigation agencies, but are only 1 or 2 percent of the criminal investigation agencies.

Direct Service Producers in Each SMSA

Most metropolitan areas have both local and State or Federal producers of direct services.

FIGURE 2.1

Distribution of Direct Services in 80 SMSAs by Type of Agency



State and Federal agencies usually supply direct services to several SMSAs. Thus the total number of *producers* for the 80 metropolitan areas is greater than the number of *agencies* supplying those services. Municipal police departments are the most numerous *producers* of direct services. More than 60 percent of the producers of patrol, traffic control, and criminal investigation in the 80 metropolitan areas are municipal police. This category includes not only the police departments of cities, towns, and villages, but also township and New England town police. Agencies

of this type usually supply all three of the direct services to the jurisdictions they serve. Table 2.1 shows a regional breakdown of the proportion of producers of direct services which are municipal police departments.

County sheriffs' departments, county police departments, and county prosecutors' police account for about 8 percent of the producers of patrol, traffic control, and criminal investigation in metropolitan areas outside New England (Region 1). New England town police conduct these services in rural parts of metropolitan areas in those States. In many other parts of the country, county sheriffs' departments or county police have responsibility for serving much of the territory within metropolitan areas, some of which is urban, but much of which is rural. County agencies also often coordinate investigations with municipal and special district police departments and supply them with auxiliary services. Like municipal departments, most of them supply all three direct services.

State police, highway patrols, and State bureaus of investigation are another group of agencies producing direct services. State agencies control traffic on at least some highways in each of the 80 SMSAs. In half of the metropolitan areas, the highway patrol or State police also conduct criminal investigations. Thirteen other metropolitan areas in the sample of 80 receive the investigative services of State bureaus of investigation.

College and university police departments commonly supply patrol and traffic control, but fewer of them investigate crimes. We consider all campus police in a single category, regardless of the kind of governing authority responsible for the campus. State, county, and municipal colleges and universities are not the only kinds of campuses with their own law enforcement agencies. Many private colleges and universities also have campus police conducting patrol, traffic control, and criminal investigation. Campus police account for almost 7 percent of the producers of direct police services in the 80 SMSAs.

Military law enforcement agencies also supply direct police services in metropolitan areas. Forty-eight base police units serve Army, Navy, Air Force, and Marine Corps installations in the 80 SMSAs. Almost all of these patrol, and more than half also investigate burglary. Investigations of homicides and of more serious burglaries on Federal military reservations are undertaken by military investigation agencies: the Army Criminal Investigations Division, the Naval Special Investigations Office, and the Air Force Office of Special Investigations. Several of the metropolitan areas have more than one installa-

TABLE 2.1 **Numbers and Types of Producers Supplying Direct Police Services in the 80 Metropolitan Areas**

Location	Number of Direct Police Producers	Percent of Direct Police Producers That Are: Municipal Police Departments	County Police and Sheriffs	State Police Agencies	Campus Police	Military Police	Federal Police Producers	Other Police Producers
All Direct Service Producers	1454	64	7	7	7	6	3	6
Northeast								
Region 1	87	69	0	18	10	0	0	2
Region 2	162	82	6	3	3	0	0	7
Region 3	143	78	1	4	6	4	2	5
Midwest								
Region 5	275	74	9	6	6	1	1	3
Region 7	54	65	7	7	4	2	4	11
South								
Region 4	305	62	9	7	10	6	2	4
Region 6	182	49	10	9	10	11	5	6
West								
Region 8	48	44	8	10	6	19	6	6
Region 9	170	43	7	4	9	15	8	13
Region 10	28	68	21	7	0	0	0	4

Rows may not total 100 percent due to rounding errors.

tion of the same branch of the military and, therefore, have several base police producers, but only a single military investigation unit. Eighty of the 1,454 direct service producers are military units.

Nonmilitary Federal agencies constitute another group of producers. The Federal Bureau of Investigation is regularly involved in burglary and homicide investigation on Federal reservations in 26 of the 80 metropolitan areas. These are SMSAs with military or other Federal reservations. The FBI and other Federal investigative agencies such as the Bureau of Alcohol, Tobacco, and Firearms and the Drug Enforcement Administration, conduct investigations in all metropolitan areas. The enforcement of Federal laws is not within the scope of this study, except on Federal reservations where Federal law supplants State law as the general criminal code. Other Federal agencies producing patrol, traffic control, or burglary and homicide investigation in Federal jurisdictions include the Veterans' Administration, the National Park Service, and the Bureau of Indian Affairs. These agencies produce direct police services in a variety of combinations, usually including patrol and traffic control. Forty of the 1,454 direct service producers are nonmilitary Federal agencies.

The final type of direct service police producers we discuss are the law enforcement departments of other agencies like housing authorities, airport authorities, park departments, capitol police, hospital police, and so on. A few of these investigate crimes, but most are patrol and/or traffic control producers. When we combine these "special district" producers, they make up about 6 percent of the producers of patrol, traffic control, and criminal investigation in the 80 SMSAs.

The median number of patrol producers in the 80 SMSAs is 13. This means that half of the SMSAs have 13 or fewer patrol producers, while half have more than 13. But, a simple count of producers does not characterize police service delivery adequately. For example, one metropolitan area might have 10 agencies that produce patrol service for a population of one million. Another might have 10 agencies, but a population of only 100,000. The difference between the two areas is lost if one uses only a simple count of producers. Computing the number of producers per 100,000 inhabitants of a metropolitan area provides a means of showing the difference between the two metropolitan areas of the example. They both would have 10 producers but the number of producers per 100,000 population in the first is 1.0, while it is 10.0 in the second SMSA. In relative terms, there are many more producers in relation to consumers in the second metropolitan area than in the first. As Table 2.2 shows, the median number of patrol producers per 100,000 inhabitants in the 80 metropolitan areas is 5.9.

A smaller number of producers investigate homicides in metropolitan areas than conduct general area patrol: the median number of homicide investigation producers is eight. No more than four homicide investigation producers per 100,000 population operate in half of the 80 metropolitan areas. Most metropolitan areas have fewer producers of traffic accident investigation and residential burglary investigation than of patrol, but more producers of these services than of homicide investigation.

Considerable regional variation exists in the number of direct service producers in an SMSA. Metropolitan areas in California and Arizona (Region 9) and in New York and New Jersey (Region 2) generally have the largest number of producers of direct police services. Regional variation is less for number of producers per 100,000 inhabitants. A common pattern across all regions is for there to be more producers of patrol than of other direct services.

In general, metropolitan areas with more residents have more producers of direct police services. By computing the number of producers per 100,000 residents, we can see whether larger SMSAs also tend to have relatively more police service producers. We find that this is not the case. Relative to the number of people living in a metropolitan area, there are *fewer* producers in the very largest SMSAs than there are in the smallest ones. Metropolitan areas with populations from 125,000 to 249,999 tend to have the most producers of direct services per 100,000 residents (Table 2.3).

The reason that more agencies produce patrol than the other direct services is that smaller cities, townships, and college campuses often organize part-time or small, full-time police agencies to *supplement* the patrol capability of other police agencies responsible for providing direct services to these areas. The municipal police departments, county sheriffs' departments, or State police which have authority to produce direct services for the areas, continue to undertake investigations—either independently or, in some cases, in coordination with the smaller agencies. Where the agencies with overlapping jurisdictions conduct investigations indepen-

TABLE 2.2 **Number of Direct Service Producers in an SMSA Who Produce Each of the Direct Services By Region**

Metropolitan Areas Grouped By 1973 Population	Number of SMSAs	Median Number of Direct Service Producers in an SMSA				Median Number of Direct Service Producers in an SMSA per 100,000 Population			
		Patrol	Traffic Accident Investigation	Burglary Investigation	Homicide Investigation	Patrol	Traffic Accident Investigation	Burglary Investigation	Homicide Investigation
Nationwide	80	13	11	10	8	5.9	5.3	4.7	3.9
Northeast									
Region 1	8	6	7	6	6	3.9	4.2	3.9	3.9
Region 2	4	19	18	16	13	6.0	4.6	4.6	3.9
Region 3	6	14	11	12	7	6.6	5.5	5.5	4.7
Midwest									
Region 5	16	13	12	11	8	7.2	6.4	5.6	4.5
Region 7	4	7	7	8	6	4.6	5.8	4.8	3.7
South									
Region 4	15	18	16	15	10	5.3	4.1	4.2	3.2
Region 6	14	6	7	6	6	3.6	3.2	3.3	3.0
West									
Region 8	4	5	5	7	7	4.2	4.0	4.7	4.7
Region 9	7	20	16	17	16	4.8	2.9	3.6	3.3
Region 10	2	5-21	6-20	5-20	5-20	3.9-10.5	4.7-10.0	3.9-10.0	3.9-10.0

TABLE 2.3 **Number of Direct Service Producers in an SMSA Who Produce Each of the Direct Services By Size of SMSA**

Metropolitan Areas Grouped By 1973 Population	Number of SMSAs	Median Number of Direct Service Producers in an SMSA				Median Number of Direct Service Producers in an SMSA per 100,000 Population			
		Patrol	Traffic Accident Investigation	Burglary Investigation	Homicide Investigation	Patrol	Traffic Accident Investigation	Burglary Investigation	Homicide Investigation
Nationwide	80	13	11	10	8	5.9	5.3	4.7	3.9
50,000 to 124,999	20	5	5	4	4	5.9	5.8	4.7	4.6
125,000 to 249,999	26	10	10	10	8	6.4	6.4	5.7	4.4
250,000 to 499,999	21	19	16	15	12	6.0	5.1	4.8	3.7
500,000 and over	13	29	27	26	22	4.0	3.5	3.5	3.0

dently, the small patrol producers specialize in patrol and immediate response services and do not usually conduct investigations. We discuss some of these arrangements more fully in Chapter III.

AGENCIES PRODUCING AUXILIARY SERVICES

The services we have discussed above are delivered directly to citizens. Auxiliary services are used by police agencies in the production of direct services. With the exception of radio communications, few direct service producers produce their own auxiliary services (Table 2.4). In this section, we discuss the types of *agencies* supplying these services. In the next section, we discuss the number of *producers* supplying each service to individual SMSAs. A single agency can be a producer in each of several metropolitan areas.

The number of agencies producing auxiliary services is smaller than for direct services. The variety of agencies producing auxiliary services is greater (Figure 2.2). Of the 985 agencies who produce radio communications, only about 60 percent are municipal police departments. County sheriffs and campus police both constitute about 10 percent of the agencies producing radio communications. About 3 percent are specialized communications centers. Many of these dispatch specialists are municipal communications bureaus organized to dispatch for both police and fire departments. Some are regional communications centers organized to serve several neighboring police agencies.

The pattern for the 200 detention producing agencies is quite different. County sheriffs maintain 44 percent of the jails, while municipal police departments maintain about 26 percent. Specialized detention centers account for 13 percent. Most military bases have their own detention facilities. They constitute another 15 percent of the agencies producing this service. These units detain only military personnel, and we did not study them in depth. We did obtain data on the detention facilities of the nonmilitary producers, however. Although county sheriffs constitute less than half of the civilian detention agencies in the 80 SMSAs, they supply more than 80 percent of the nonmilitary detention capacity in these areas.

All levels of government are involved in the production of entry-level training. Municipal agencies constitute about 30 percent of the 226 agencies producing entry-level training, while

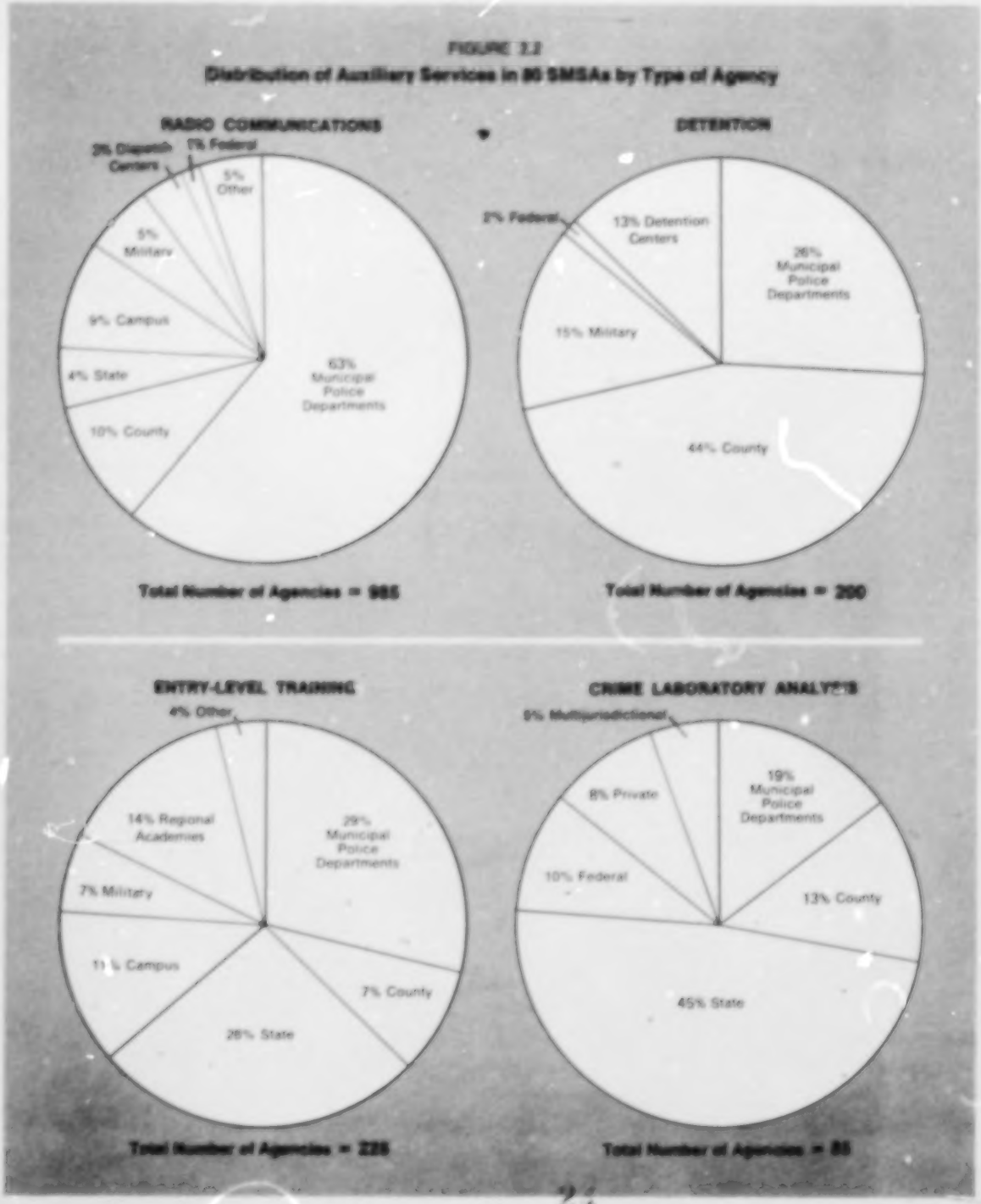
TABLE 2.4 **Auxiliary Services Supplied by Direct Service Producers**

Type of Direct Service Producer	Number of Direct Police Producers	Percent of Direct Producers That Supply: Radio Communications	Adult Pre-Trial Detention	Entry-Level Training	Chemical Laboratory Analysis
All Direct Producers	1454	68	11	15	8
Municipal Police Departments	936	66	6	6	1
County Police and Sheriffs	108	87	81	7	7
State Police	97	88	0	86	60
Campus Police	108	84	0	8	0
Military Police	81	58	17	42	12
Federal Police	40	32	8	75	65
Other Police Producers	84	58	0	10	0

State agencies constitute about the same percentage. About 14 percent are regional training academies. Most of these academies are organized through inter-jurisdictional arrangements in which a number of local, direct service producers in a metropolitan area organize one academy to serve their combined needs. A governing board, composed of local police officials, organizes the curriculum and hires the instructors. Colleges also offer entry-level training for direct service producers in several SMSAs. They account for about 11 percent of the producers of police recruit training. County academies and military and civilian Federal agencies are the other suppliers of entry-level training.

FIGURE 3.3

Distribution of Auxiliary Services in 80 SMSAs by Type of Agency



The number of agencies regularly producing crime laboratory analysis for the 80 SMSAs is small—only 85. State agencies constitute about 45 percent of these, while municipal departments and county sheriffs each make up about 15 percent. About 10 percent are Federal agencies. There are seven private producers and four multi-jurisdictional agencies conducting chemical analysis of evidence. Most of these agencies supply crime laboratory analysis to more than a single metropolitan area.

Auxiliary Service Producers in Each SMSA

The number of *producers* of auxiliary services in each SMSA is much lower than that for direct services (Table 2.5). The median number of radio communications producers in an SMSA is nine, four for entry-level training and two for detention and for laboratory analysis. There is no more than one jail and one crime lab for approximately every seven patrol or investigation producers in half of the SMSAs. There is no more than one training academy for every three direct service producers. The median is less than one radio communications producer for each police agency using radio communications.

The number of auxiliary service producers increases in larger SMSAs, while the number relative to the number of direct service producers falls. So, in the median SMSA of those over 500,000 in population, there is approximately one jail and one lab per ten direct service producers, while in the median SMSA of those under 125,000 there is one jail per five direct service producers and about one crime lab per four direct service producers.

It is true that there are a large number of police agencies serving metropolitan areas. Most of these agencies supply direct services and radio communications. The number of producers of detention, entry-level training, and crime lab analysis is substantially smaller. The roles of different types of agencies also vary considerably across the 80 SMSAs. The variations in production patterns by size of agency, by size of metropolitan area, and by region, preclude making broad generalizations for police services delivery in all metropolitan areas.

TABLE 2.5 Number of Auxiliary Service Producers in an SMSA Who Produce Each of the Auxiliary Services By Size of SMSA

Metropolitan Areas Grouped By 1973 Population	Number of SMSAs	Median Number of Auxiliary Service Producers in an SMSA: Radio Communications	Entry-Level Training	Adult Pre-Trial Detention	Crime Laboratory Analysis	Median Number of Auxiliary Service Producers in an SMSA per Direct Service Producers Who Utilize Service: Radio Communications	Entry-Level Training	Adult Pre-Trial Detention	Crime Laboratory Analysis
Nationwide	80	9	4	2	2	.66	.33	.15	.14
50,000 to 124,999	20	5	2	1	2	1.00	.50	.22	.25
125,000 to 249,999	26	6	3	1	1	.81	.33	.11	.11
250,000 to 499,999	21	16	7	2	3	.88	.35	.15	.15
500,000 and over	13	23	8	4	3	.82	.29	.11	.09

Chapter III

AGENCY COOPERATION AND SERVICE DELIVERY

Conventional wisdom holds that if many police agencies exist in a metropolitan area, it necessarily follows that there must be duplication of services. Police officers are pictured as tripping over one another as they weave in and out of fragmented jurisdictions. Officers are seen as isolated from their counterparts in nearby departments and as failing to cooperate across jurisdictional boundaries.

In this chapter we present findings which indicate otherwise. We find little duplication of services. We discuss the ways in which police agencies in fact organize their service delivery systems to avoid duplicating each other's work. Then we examine fresh pursuit legislation which opens the boundaries between jurisdictions. Finally, we discuss the extent of emergency assistance, mutual aid agreements, and deputization among police agencies.

Although we present findings about many workable arrangements for policing among agencies, we are in no way recommending maintenance of the status quo. Police organization in each particular area can be examined to determine whether current service delivery patterns can be improved. Arrangements which work well in one metropolitan area may not work well in a different area. The recognition that policing has been organized in a variety of ways leads to the realization that many options are available for reorganizing police services delivery.

DUPLICATION OF SERVICES

Duplication of services has been a major concern of critics of American policing. That concern has arisen from the observation that most metropolitan areas have numerous, separate direct service police agencies. The assumption is that these agencies are duplicating each other's work. In general, our findings refute this assumption.

The work of policing is, with few exceptions, divided among the various agencies of an SMSA. Each agency is responsible for conducting a limited set of activities and for serving a limited territory.

Overlapping jurisdictions have also been viewed as indicative of duplicate service delivery. But again, the assumption is generally inconsistent with our findings. For example, county sheriffs' departments typically do *not* patrol in those parts of their legal jurisdiction patrolled by municipal police. Similarly, city police agencies usually do not patrol residential campuses or military bases within city limits when these special areas have their own police. It is, therefore, important to distinguish service areas from jurisdictions. A police service area is any territory with a resident population and a unique set of service delivery arrangements. Only where two or more producers conduct the same service in a single *service area* may they duplicate each other's work. Even this is not usual, however. Most producers conducting the same service in the same service area have adopted divisions of labor which eliminate duplication.

Alternation of Direct Services

In most service areas where two or more producers supply the same service, the producers have divided the work between them. The most common type of division is alternation. Service delivery can alternate in time, in space, or with respect to specific clientele groups. For example, some small municipal police departments patrol the streets of their municipalities only from eight A.M. to midnight. From midnight to eight A.M., county sheriffs' departments patrol those municipalities. This is alternation in time. No duplication is involved. In such situations, county sheriffs' patrols substitute for the municipal police officers.

Alternation in space for patrol usually occurs where there is a special purpose patrol

agency operating in the jurisdiction of another agency. Examples include municipal park police who patrol exclusively in the parks; school district or community college police who patrol only on campus; and special district police who patrol airports, bridges, or hospitals. The defining characteristic of alternation in space is the supply of patrol services to an enclave of another agency's jurisdiction, where the enclave does not have a resident population. Officers from the larger jurisdiction may or may not patrol the enclave; generally they do not.

For traffic patrol, a geographic division of responsibility by type of thoroughfare is often established. State agencies often patrol traffic on inter-State freeways and major State highways, but not elsewhere in the jurisdiction. Municipal and country police rarely patrol freeways.

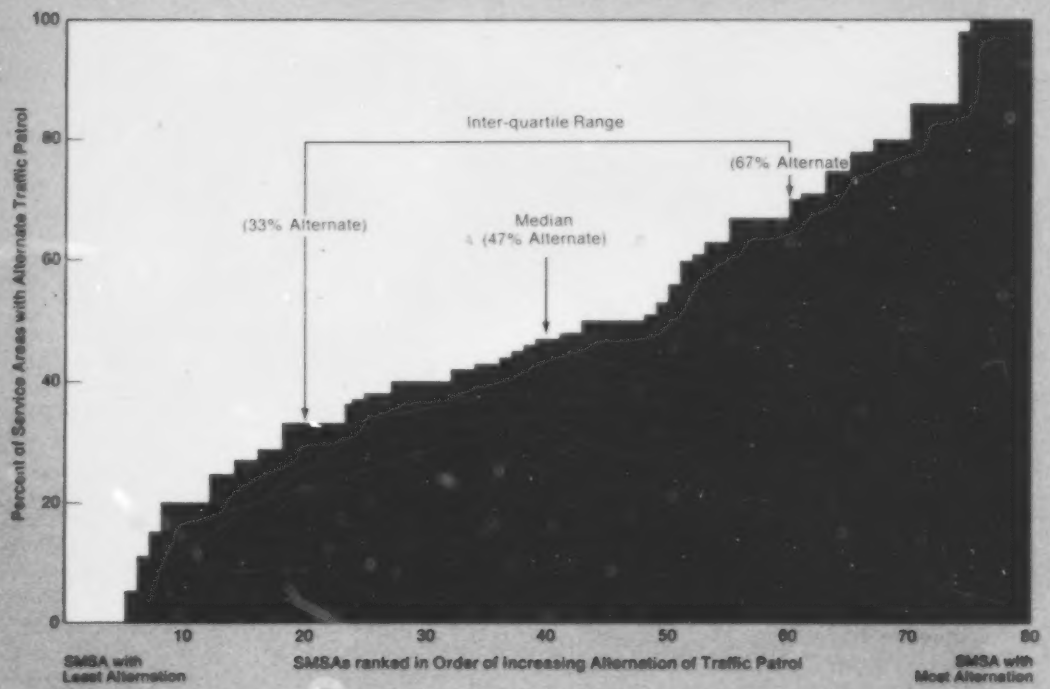
Alternation based on clientele served is exemplified by the relationship between municipal police departments and military police where municipalities adjoin large military bases. Both military police and municipal police officers may patrol the downtown area of the municipality. The military police limit their attention to military personnel, while the municipal police retain their responsibility for dealing with civilians.

For traffic accident investigation, the division of responsibility between agencies is often determined by the seriousness of the accident; i.e., fatalities may be investigated by an agency other than the one which investigates nonfatal personal injury accidents. Also, property loss limits may determine which agency will investigate a particular accident.

Figure 3.1 illustrates the extent of traffic patrol alternation in the 80 SMSAs. The SMSAs are ordered from left to right according to the percentage of their service areas with alternate traffic patrol producers. Above the line are bars indicating the percentage of service areas with alternate traffic patrol producers. Half of the metropolitan areas have alternation in more than 47 percent of their service areas. Half have 47

FIGURE 3.1

Alternation of Traffic Patrol in 80 SMSAs



percent or less. (That is, the median SMSA has alternate producers in 47 percent of its service areas.) One-fourth of the SMSAs have alternation in 33 percent or fewer of their service areas. Another fourth have alternation of traffic patrol in more than 67 percent of their service areas. (That is, the inter-quartile range is between 33 and 67 percent.) Service areas with alternate producers of traffic patrol tend to be larger than those without alternate producers. In half of the SMSAs, over three-quarters of the population is served by alternate traffic patrol producers.

As shown in Table 3.1, there is more alternation of patrol, traffic patrol, and accident investigation than of burglary or homicide investigation. Legal powers and duties assigned to different types of agencies by State law influence alternation of service delivery. In our sample of New England SMSAs, for example, all service areas receive accident investigation services from alternating producers because of State policy. In Massachusetts, the Registry of Motor Vehicles investigates all fatal accidents, and in Connecticut, the Connecticut State Police investigate all accidents on the freeways which are located in each of the four Connecticut SMSAs. Local police agencies investigate other traffic accidents in the SMSAs of these States.

There is usually more alternation of patrol and accident investigation in SMSAs with larger populations. These SMSAs are more likely to have airports, municipal parks, and other enclaves with specialized police forces. Larger SMSAs are also more likely to have major freeways crossing several municipalities, each with its own local police. This creates more service areas to receive alternate service from State police or highway patrols.

Coordination of Direct Services

Coordination occurs when two or more producers plan and execute service activities together in a single service area. Two agencies investigating homicides or residential burglaries in the same service area usually coordinate their work. Regular coordination of criminal investigation typically involves performance of two related sets of activities: one based on local contacts, the other on special investigative skills. Screening crime reports, conducting initial inquiries, and providing contacts and background information regarding the service area are typically carried out by a service area's own police department. Departments performing only these aspects of criminal investigation usually participate in investigations only in their own jurisdiction. They work with investigative specialists, who gather and assemble physical evidence and testimony. These specialists typically work with departments in numerous service areas.

Coordination in burglary investigation occurs primarily in small towns and in special police districts, e.g., college and university campuses. Most of the assistance to local police agencies in these service areas comes from the detectives employed by county and State investigative agencies.

Metropolitan areas vary widely in the percentage of their service areas for which agencies

TABLE 3.1 Alternation, Coordination, and Duplication of Direct Police Service Delivery in 80 SMSAs

Police Service	Percent of Service Areas in Each SMSA Receiving Service From: Alternate Producers		Coordinated Producers		Duplicate Producers	
	Median	Inter-Quartile Range	Median	Inter-Quartile Range	Median	Inter-Quartile Range
Patrol	21	4 - 38	0	0 - 0	0	0 - 14
Traffic Patrol	47	33 - 67	0	0 - 0	0	0 - 13
Traffic Accident Investigation	35	13 - 64	0	0 - 7	0	0 - 7
Residential Burglary Investigation	7	0 - 25	6	0 - 27	0	0 - 0
Homicide Investigation	0	0 - 15	33	13 - 70	0	0 - 0

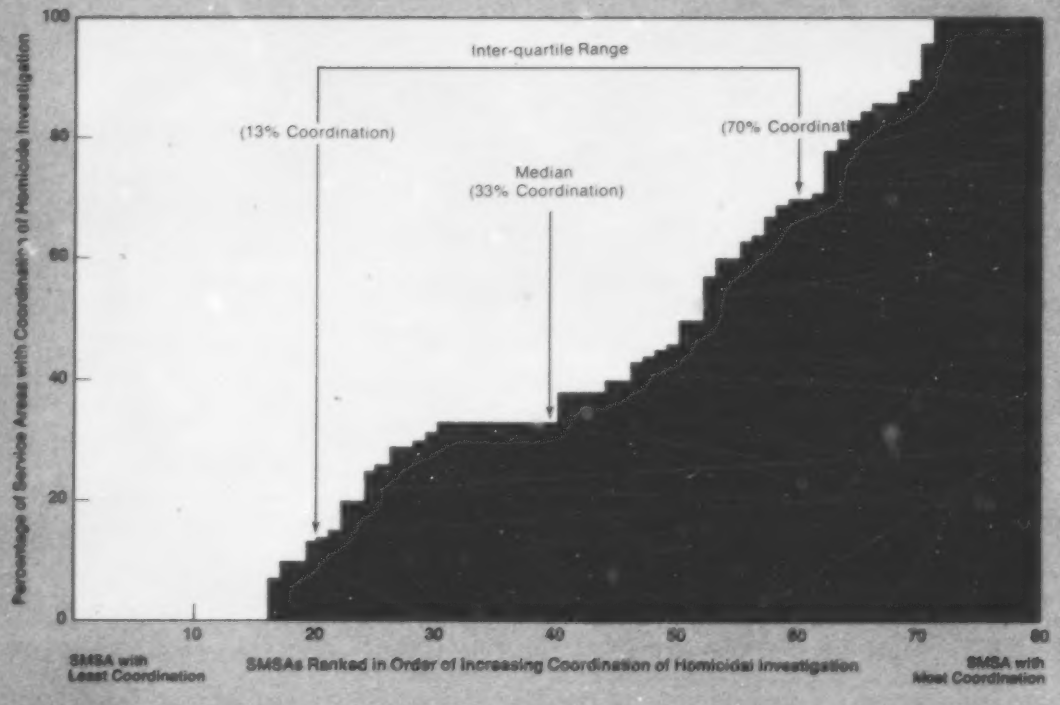
coordinate homicide investigation. This variation is displayed in Figure 3.2. In 16 of the 80 SMSAs, no service area has coordinated homicide investigation. These SMSAs are grouped at the left side of the figure. All service areas have coordinated homicide investigation in nine metropolitan areas. These are at the right side of the figure. The median SMSA has coordinated homicide investigation in 33 percent of its service areas. The inter-quartile range is from 13 percent to 70 percent of the service areas.

As Table 3.1 shows, coordination is a more common arrangement for criminal investigation than for patrol, traffic patrol, or accident investigation. Coordination is most extensive for homicide investigation. In over half of the SMSAs, at least one-third of the service areas have coordinated homicide investigation. The median for coordination of burglary investigation is 6 percent, with an inter-quartile range from zero to 27 percent. In half of the SMSAs, 7 percent or less of the population is served by coordinated homicide investigation, reflecting the smaller populations of most service areas with coordinated investigation services.

State laws and policies are important in determining the extent of coordination of homicide investigation. County prosecutors' detectives investigate all homicides and other major crimes in California and New Jersey SMSAs. State detective bureaus have been established to investigate homicides in Massachusetts and New Mexico. In many other States, State police regularly coordinate with police in some service areas where local investigative resources need to be supplemented.

In addition to producers who regularly coordinate all investigations of burglary or homicide, there is also considerable temporary or special purpose cooperation between departments. *Occassional cooperation* on investigations is practically universal. Few, if any, police agencies, whatever their resources, find it possible to gather all the information and evidence they need

FIGURE 3.2
Coordination of Homicide Investigation in 80 SMSAs



in all cases without the assistance of other agencies. In many metropolitan areas, *special interagency task forces* have been established to provide continuity to the cooperative efforts of the various criminal investigation agencies working in the area. Several SMSAs, including Des Moines, Iowa and Madison, Wisconsin, have developed multi-jurisdictional major case squads. The squads train together at regular intervals and are available to any jurisdiction in the area if a major case—usually a homocide—occurs and the local force needs the help of a specialized team.

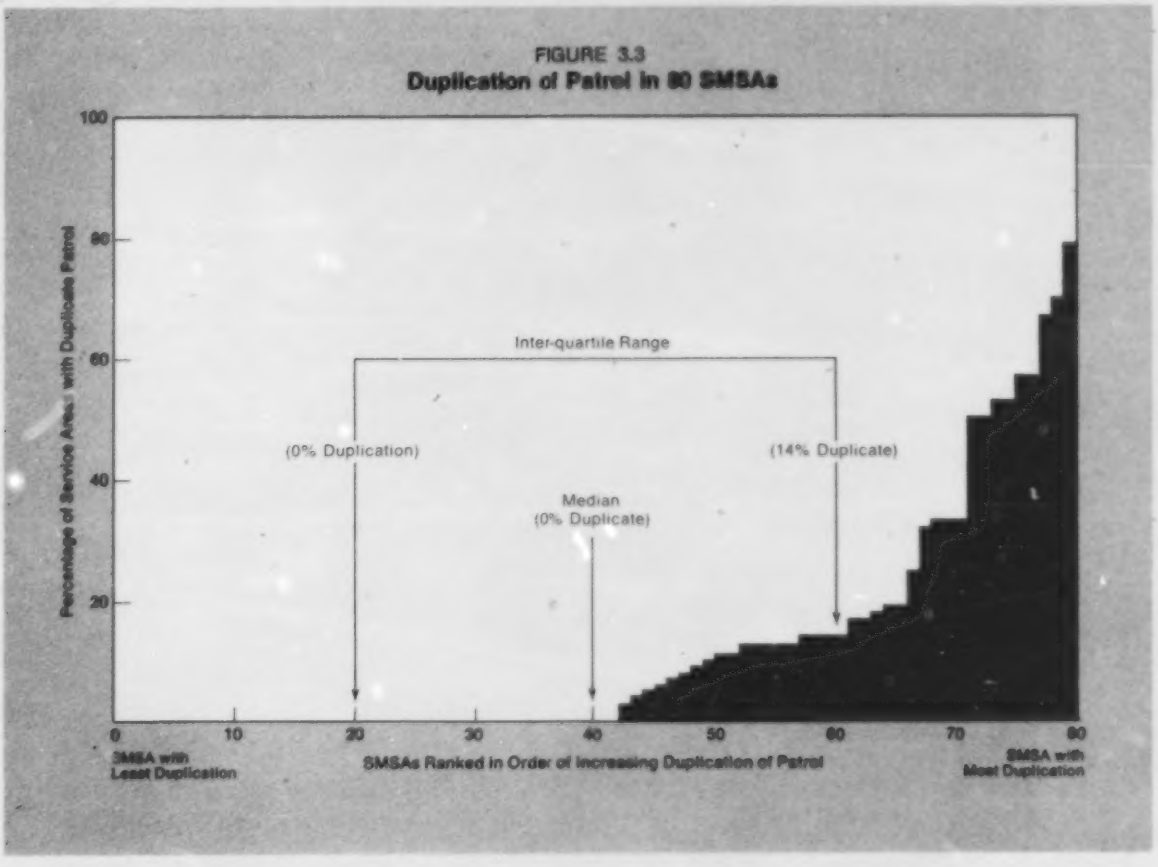
Duplication of Direct Services

Duplication occurs only in those service areas where two or more police agencies supply the same service without alternating or coordinating their activities. As shown in Table 3.1, no duplication exists in over half of the SMSAs for all direct services. There is no duplication in residential burglary investigation and homicide investigation in three-quarters of the SMSAs. More duplication exists in the supply of general area patrol than in the supply of the other direct services. Figure 3.3 displays the extent of patrol duplication for the 80 SMSAs. Forty-two of the 80 SMSAs have no duplication of patrol. The inter-quartile range is zero to 14 percent. Only about 10 percent of the SMSAs have more than one-third of the service areas receiving duplicate patrol services. In the SMSA with the most duplication of patrol, 79 percent of the service areas (but only 48 percent of the population) are served by duplicate patrol producers. Duplication of patrol production occurs primarily in service areas with smaller populations, and this accounts for the smaller proportion of population being served by duplicate producers.

Duplication, Coordination, and Alternation of Auxiliary Services

Duplication and coordination of auxiliary

FIGURE 3.3
Duplication of Patrol in 80 SMSAs



services are rare. Only a few SMSAs have police agencies receiving an auxiliary service from two coordinating producers. In more than half of the SMSAs, no duplication exists for any of the auxiliary services (Table 3.2). Where duplication exists, for training and chemical analysis, it may be an advantage. Police agencies using two or more academies or labs have the choice of where to send recruits or evidence. These are services for which a choice of suppliers may be particularly useful to the agency needing the service.

There is some alternation in radio communications. Some smaller municipal agencies are dispatched by a civilian during the day-time hours. (This person may also keep police and/or nonpolice records and do other secretarial work.) In the evening hours, these agencies are dispatched by a county sheriff or a neighboring city police department. Some alternation occurs in the delivery of pre-trial detention where two agencies specialize: one holds male prisoners, while the other holds female prisoners. However, this type of alternation is not extensive. Alternation in entry-level training and crime laboratory analysis is very infrequent.

Duplication and Diversity

Although there is almost no duplication in service delivery, there is certainly much diversity in service arrangements. Diversity, by itself, is likely to be neither everywhere useful nor everywhere harmful. It may or may not lead to confusion of responsibility. Most police chiefs with whom we spoke expressed little concern about the existence of a number of patrol, traffic control, and criminal investigation producers in their metropolitan areas, nor were they concerned about those other agencies serving in their own service areas. At the same time, some chiefs were concerned about ambiguities in the division of responsibilities between their own departments and others operating in the same areas. Clearly, some localities have not developed working relationships that are understood and accepted by all the agencies affected. Such localities are rare, however.

FRESH PURSUIT

The division of metropolitan areas into several separate police jurisdictions is seen by some observers as a deterrent to effective law enforcement. They assume that police officers have no authority to pursue a fleeing suspect beyond jurisdictional boundaries. Because police officers' authority is largely determined by State legislation, we examined State laws regarding fresh pursuit both within and between States. We found that police officers in most States have explicit authority to pursue suspects beyond the limits of their own jurisdictions.[1] However, that authority is subject to a variety of restrictions.

Intra-State Fresh Pursuit

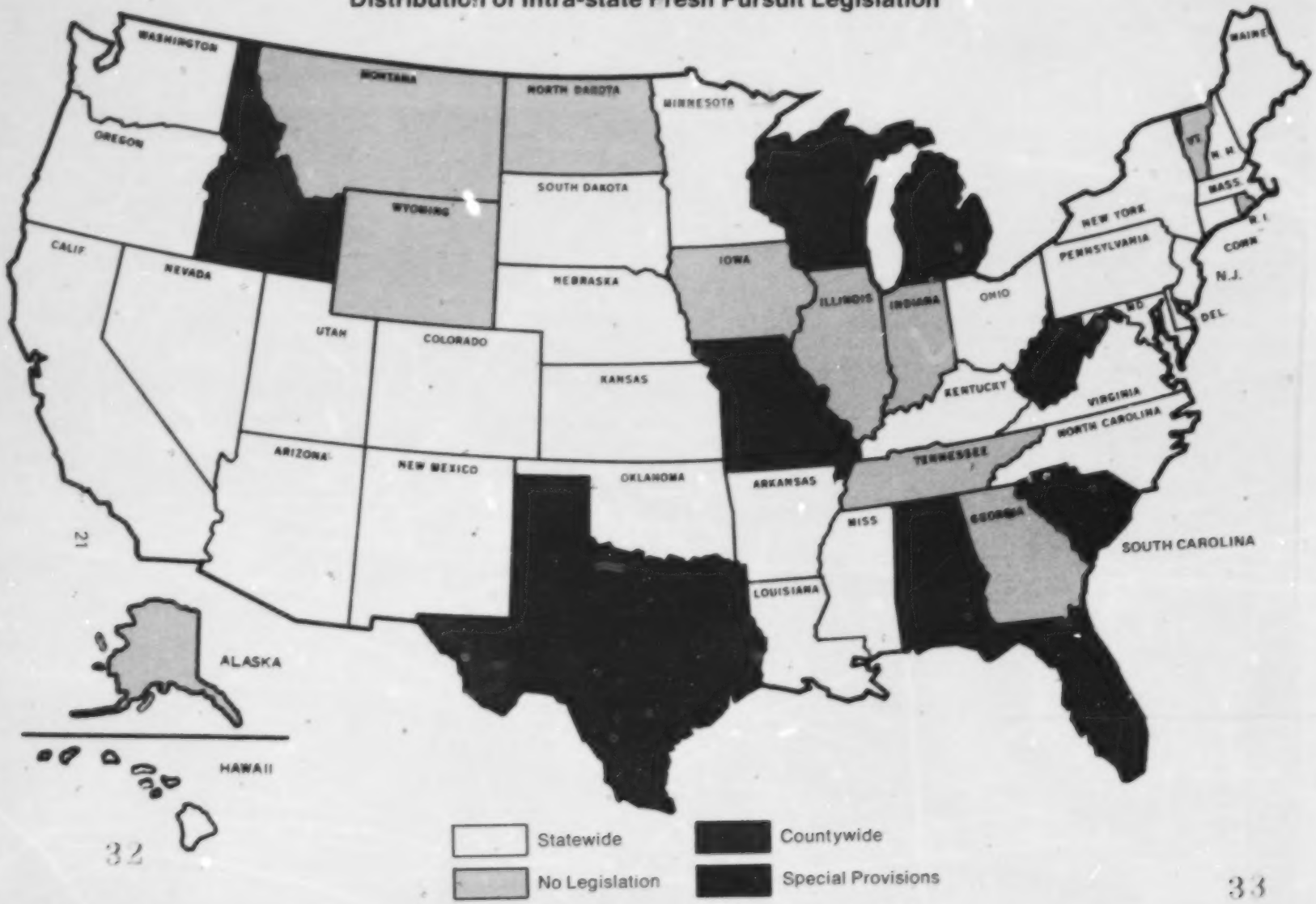
Thirty-nine States have intra-State fresh pursuit legislation—statutes authorizing county or municipal peace officers to pursue suspected criminals across municipal and county lines. These States are shown in Map 3.1.

TABLE 3.2 Alternation, Coordination, and Duplication of Auxiliary Police Service Delivery in 80 SMSAs

Police Service	Percent of Service Areas in Each SMSA Receiving Service From: Alternate Producers		Coordinated Producers		Duplicate Producers	
	Median	Inter-Quartile Range	Median	Inter-Quartile Range	Median	Inter-Quartile Range
Radio Communications	5	0 - 17	0	0 - 0	0	0 - 0
Detention	0	0 - 12	0	0 - 0	0	0 - 0
Entry-Level Training	0	0 - 0	0	0 - 0	0	0 - 11
Chemical Laboratory Analysis	0	0 - 0	0	0 - 0	0	0 - 7

MAP 3.1

Distribution of Intra-state Fresh Pursuit Legislation



Intra-State fresh pursuit is generally not a problem for officers employed by State-level law enforcement agencies. Most State law enforcement agencies have, by definition, State-wide jurisdiction. State police may pursue suspected offenders anywhere within their State. County and local peace officers have more restricted jurisdictions. Fresh pursuit legislation is not always uniformly applicable to these peace officers. In Maine, for example, county sheriffs may pursue a suspect anywhere in the State for any offense, but municipal peace officers are permitted by legislation to pursue only as far as the county lines. In South Carolina, sheriffs and their deputies may pursue into adjacent counties for any offense, but municipal peace officers may pursue only three miles beyond their own city limits.

Pursuit authority may also be limited by the type of offense. North Carolina county sheriffs are permitted to pursue suspected felons anywhere in the State, but are otherwise limited to their own counties. In Virginia, all peace officers are given State-wide authority to pursue suspected felons, but can pursue only into an adjacent jurisdiction for a misdemeanor committed in an officer's presence.

Of the 39 States having specific legislation on intra-State fresh pursuit, 22 authorize *all* county and municipal peace officers to engage in fresh pursuit throughout their State for *any* offense. An additional eight States authorize State-wide pursuit under at least some circumstances. That 30 States authorize some form of *State-wide* fresh pursuit contradicts any blanket assertion that police officers are unable to pursue beyond their own jurisdictions. Of the nine additional States having other forms of legislation regarding intra-State fresh pursuit, eight authorize *county-wide* pursuit for any offense.

Eleven States have no legislation pertaining specifically to intra-State fresh pursuit. Lack of specific legislation does not, however, preclude intra-State fresh pursuit activity in these States. In States having no applicable statutes or case law, officers have the same right to arrest another person as do private persons under the common law. (Under common law, a citizen may make an arrest only for an offense committed in his/her presence.) So, even in States with no legislation or case law specifically applicable to intra-State fresh pursuit, law enforcement officers are not helpless if a suspected criminal crosses jurisdictional lines: the citizen's arrest right extends state-wide.

Standards of Knowledge

The standard of knowledge required of an officer before he can engage in fresh pursuit depends, in many States, upon the type of crime committed. For example, an officer in Alabama can make an arrest for a misdemeanor without a warrant only if the crime is committed in his presence. But to make an arrest for a felony, the officer needs only to have reasonable cause to believe a felony has been committed.

For misdemeanors, 13 of the 39 States with fresh pursuit legislation grant officers authority to engage in fresh pursuit when they have reasonable cause to believe that a crime has been attempted or committed. Twenty-four States grant fresh pursuit for misdemeanors under the more limited condition that the crime was attempted or committed in the officer's presence. Practically all of the 39 States grant fresh pursuit authority with reasonable cause for felonies.

Inter-State Fresh Pursuit

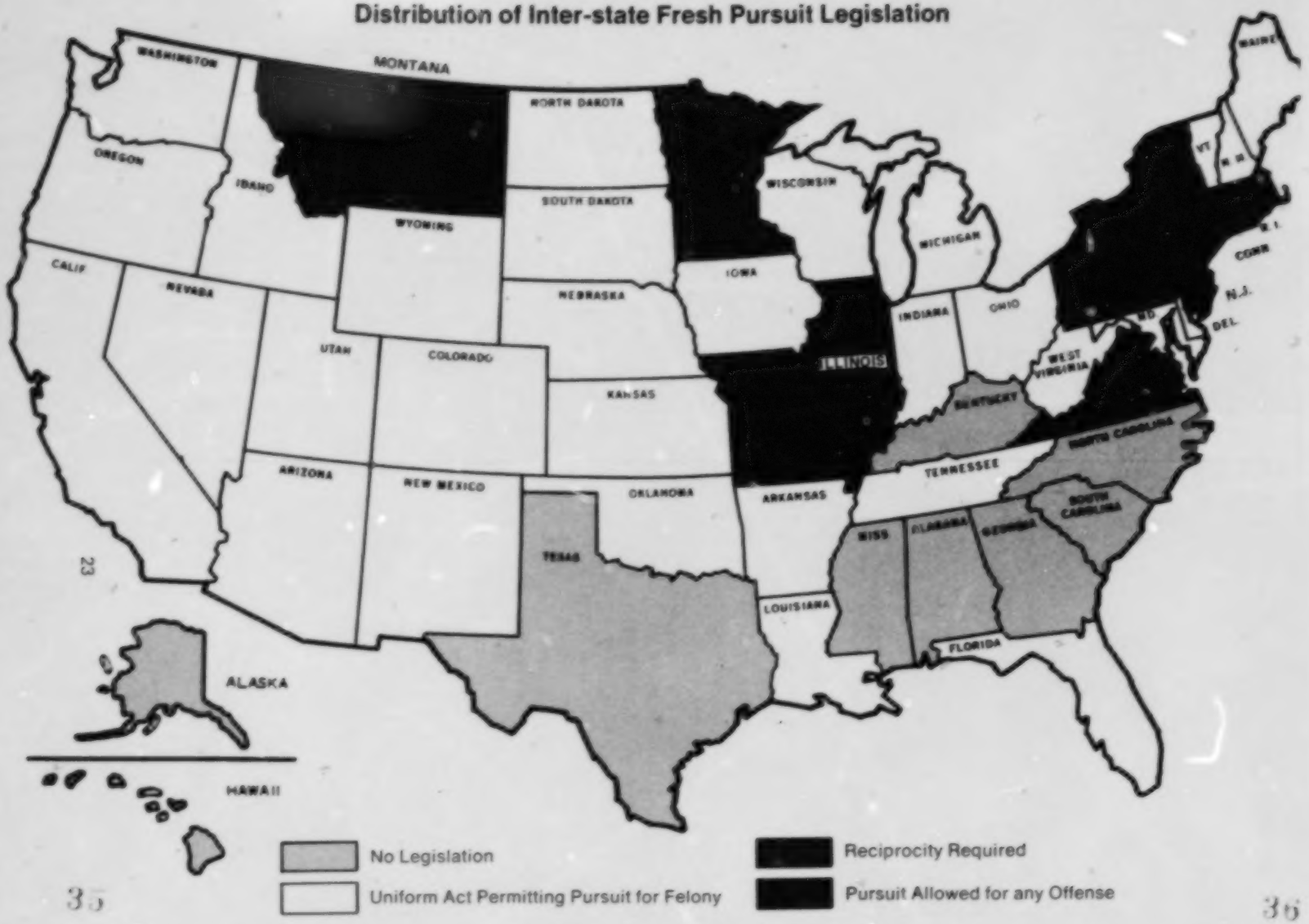
When a suspect flees across State lines, what authority does the pursuing officer have? Here the legislation is more specific: a majority of States have extended broad authority to the police officer as exemplified by this statute:

> *Any member of a duly organized state, county or municipal peace unit of another state of the United States who enters this state in fresh pursuit, and continues within this state in such fresh pursuit, of a person in order to arrest him on the ground that he is believed to have committed a felony in such other state, shall have the same authority to arrest and hold such person in custody, as has any member of any duly organized state, county or municipal peace unit of this state, to arrest and hold in custody a person on the ground that he is believed to have committed a felony in this state. [Kansas S.A. §62-632 (1937)]*

A statute like this is designated a Uniform Act on Fresh Pursuit and has been enacted by 31 States. Ten more States have enacted variations of the Uniform Act. Of these 10, two have broadened the authority of the Uniform Act to include *any* offense. The other eight require reciprocity for their own Act to authorize inter-State fresh pursuit. A police officer in any of these eight States can pursue across State lines into any other State that has passed a variant of the Uniform Act. By 1974, only nine States had not enacted any legislation on inter-State fresh pursuit. Most of these States are located in the South, as shown on Map 3.2.

MAP 3.2

Distribution of Inter-state Fresh Pursuit Legislation



Police officers in most States have relatively broad powers to pursue fleeing suspects, particularly when a felony is suspected. Some States without specific *intra*-State authority have used their authority under the Uniform Act authorizing *inter*-State fresh pursuit as authorization for fresh pursuit within their own State. So the actual practice concerning intra-State fresh pursuit may be somewhat understated.

EMERGENCY ASSISTANCE, MUTUAL AID AGREEMENTS, AND DEPUTIZATION

Presumed lack of cooperation among police agencies is a favorite topic of critics of metropolitan policing. In contrast, we find a great deal of mutual assistance. We deal only with local producers of general area patrol since they are the agencies usually viewed as most likely to need emergency assistance.

Patterns of Inter-Agency Assistance

Eighty-six percent of local patrol agencies in the 80 SMSAs report that they assist other police departments outside their jurisdictions (Table 3.3). Ninety-one percent report that they receive assistance from other agencies. Is this assistance "reciprocal"? In almost all cases, the answer is yes. Only 3 percent of local patrol producers report assisting other agencies, while not receiving assistance themselves. Eight percent report receiving assistance without themselves providing assistance. Together, both types of nonreciprocal assistance apply to only 11 percent of the patrol agencies. Ninety-three percent of all local patrol agencies in the 80 SMSAs report providing *or* receiving assistance.

Municipal police departments provide assistance outside their jurisdictions more often than other types of local patrol agencies. More than 90 percent of municipal patrol agencies indicate that their officers go beyond jurisdictional boundaries to assist other agencies. County sheriffs are slightly less likely to assist *outside* their jurisdictions: 77 percent provide aid outside their jurisdictions. It should be noted, however, that out-of-jurisdiction for most county producers means beyond *county* lines. Almost all county sheriffs do assist the municipalities *within* their county. Special patrol producers and campus police agencies are much less likely to assist outside their jurisdictions. In some instances, the legal powers of these officers are limited to the jurisdictions of their employing agency by State law; for example, to a college or university campus. These agencies are also less likely to share radio frequencies with other agencies, and so their officers are not as likely to be aware of another agency's need for emergency help.

More than 90 percent of municipal police agencies, and about 80 percent of the county agencies, report receiving assistance. Similar proportions of campus and other special district patrol producers report receiving assistance.

Mutual Aid Agreements

Although almost all local police agencies provide assistance to and receive assistance from other agencies, fewer local agencies enter into *formal* mutual aid agreements with other departments.

TABLE 3.3 Percent of Local Patrol Producers Who Give or Receive Assistance And Who Are Members of Formal Mutual Aid Agreements

Percent of Local Patrol Producers Who	Type of Producer				
	Nationwide	Municipal Police Departments	County Police	Campus Police	Other Police
Assist Others Outside Jurisdiction	86	92	77	56	53
Receive Assistance From Others	91	92	79	87	97
Members of Formal Mutual Aid Agreements	47	51	30	32	32

Nearly half of the patrol agencies have some type of mutual aid agreement with at least one other agency. Municipal police departments are the most likely to organize such aid agreements. Fifty-one percent of the municipal police departments, but only about 30 percent of county agencies, campus police, and other specialized producers belong to mutual aid pacts.

Significant regional differences exist in mutual aid pact membership. The West has the largest proportion of agencies who are parties to formal aid arrangements; the South has the smallest proportion. The large proportion of agencies in the West who have formal aid agreements is due principally to California law which requires all police agencies to be members of formal mutual aid pacts.

Patterns of Deputization

Deputization means that police officers from one jurisdiction are given police powers in a jurisdiction or jurisdictions other than their own. Almost two out of five local patrol agencies use some type of deputization arrangement. The most prevalent arrangement is a nonmutual one where one agency's officers are deputized by a second agency, but the first agency does not deputize the second agency's officers.

The officers of over one-third of the local patrol agencies we studied are deputized by other police agencies. Seventeen percent of the patrol producers deputize officers from other jurisdictions. Examination of deputization patterns for county and municipal police departments provides a clue as to why a larger number of agencies have officers deputized by other agencies than deputize officers from other agencies.

Nearly 50 percent of the county agencies indicate that they deputize officers from other agencies, while only 16 percent of the municipal agencies and almost no campus agencies deputize officers from other agencies. In many instances, county sheriffs deputize officers from the smaller municipal agencies operating within their jurisdictions. Deputization enables county sheriffs, who may have many municipal departments within their overall jurisdictions, to draw upon these departments for back-up assistance within the county as a whole.

Fewer than 20 percent of the county patrol agencies have officers who have been deputized by other departments. Sheriffs' department officers do not need to be deputized by municipalities to have powers of arrest within the municipalities in their own county. This contrasts with municipal, campus, and other local police departments, which have more of their officers deputized by other agencies. Many of these are small departments. Across the country, more than 50 percent of the departments with only part-time officers and more than 30 percent of the departments with 1 to 10 officers have their officers deputized by another agency.

Campus police departments are most likely to have their officers deputized by city, county, or State police. This deputization may give campus police their formal police powers, since in some States college and university security departments are not empowered to authorize their own officers. Campus police are not likely to deputize others—other agencies with legal jurisdiction on a campus do not need their officers deputized.

Participation in Emergency Assistance

Only 50 percent of the patrol producers who both give and receive emergency assistance outside their jurisdiction are members of mutual aid agreements. Clearly, assistance is available in many places without formal agreements. Twenty-six percent of the agencies which report neither giving nor receiving any external assistance belong to mutual aid agreements; so belonging to a mutual aid pact is no guarantee that assistance has been provided. (Of course, there may have been no need for assistance in some of these cases.) Almost 70 percent of the producers who report both giving and receiving emergency assistance are either members of mutual aid pacts or have some form of deputization agreement. Thus, most of the agencies reporting mutual assistance do have some formal arrangements between them, although the absence of formal arrangements does not preclude assistance.

Larger municipal police departments are less likely to give and receive emergency assistance than small departments (Table 3.4). More than 90 percent of municipal police departments smaller than 50 full-time sworn officers both give and receive emergency assistance. For municipal departments larger than 150 officers, this proportion falls to 80 percent giving assistance and 61 percent receiving assistance. About 50 percent of the municipal departments with 150 or fewer full-time sworn officers are parties to mutual aid agreements, while only 24 percent of the largest departments participate in such agreements. The relationship for county departments is the opposite. Larger county departments are more likely to both give and receive assistance than are their large municipal counterparts. Smaller

county departments are not as likely to participate in a mutual aid agreement as are smaller municipal departments. Almost 50 percent of the county agencies with over 150 full-time sworn officers participate in such agreements. Department size has no relationship to assistance for campus and other local agencies.

COOPERATION, NOT ISOLATION

We find much more cooperation among police agencies producing patrol services than one would expect after reading many of the descriptions of metropolitan policing which have appeared in national reports. Nationwide, about 90 percent of all agencies give or receive emergency assistance outside their own jurisdictions. While the proportion of agencies who belong to formal mutual aid agreements is lower (nearly 50 percent of all patrol agencies), membership in such formal agreements is not necessary for emergency assistance to be given. Agencies operating in metropolitan areas with large numbers of patrol producers are more likely to engage in both formal and informal assistance.

TABLE 3.4 Assistance By Size of Producer

Type of Patrol Producer	Number Reporting	Percent of Patrol Producers That: Provide Assistance To Other Police Agencies	Receive Assistance From Other Police Agencies	Belong To A Mutual Aid Agreement
Municipal Police Departments By Number of Full-Time Officers	841	92	92	51
Part-Time Only	62	95	98	53
1 to 4	213	92	95	46
5 to 10	206	95	95	50
11 to 20	119	93	96	58
21 to 50	119	93	94	64
51 to 150	76	87	79	57
Over 150	46	80	61	24
County Police And Sheriffs By Number of Full-Time Officers	91	77	79	27
1 to 4	2	50	50	0
5 to 10	4	75	100	0
11 to 20	16	69	75	31
21 to 50	27	85	85	22
51 to 150	26	69	65	31
Over 150	16	88	94	50
Campus Police By Number of Full-Time Officers	93	56	87	32
Part-Time Only	3	0	100	67
1 to 4	13	31	77	46
5 to 10	36	64	92	28
11 to 20	18	61	78	17
21 to 50	20	65	95	40
51 to 150	3	33	67	33
Other Local Producers By Number of Full-Time Officers	38	53	97	32
Part-Time Only	2	0	100	50
1 to 4	11	73	100	55
5 to 10	10	60	90	0
11 to 20	8	50	100	25
21 to 50	6	33	100	33
51 to 150	1	0	100	100

Not only do the various agencies patrolling parts of metropolitan areas provide each other with needed emergency assistance in most cases, but they also have generally organized their work to avoid duplicating each other's activities. Patrol, traffic patrol, and traffic accident investigation are conducted in alternate times or places in most service areas that have more than one producer of the service. Coordination of criminal investigations is common.

Overlapping jurisdictions usually do not result in duplication of service delivery. Nor do many separate jurisdictions limit fresh pursuit. Most States have legislation explicitly authorizing pursuit beyond local boundaries. Cooperation between police agencies throughout the Nation's metropolitan areas is extensive.

NOTES TO CHAPTER III

1. The process of determining whether a state does or does not have legislation in this area involves a somewhat complex analysis. There may be a statute dealing with arrest powers, but jurisdictional limits are not mentioned. Or, a statute dealing with the problem of intra-State fresh pursuit may have been repealed. To illustrate, Iowa police officers are ordered to "pursue and arrest any person fleeing from justice." [Iowa Code Ann. §368A.17 and 18 (1973)] Although this duty is not limited by any reference to jurisdictional lines, a recent Iowa case has held that an officer seeking to make an arrest without a warrant outside his originating jurisdiction must be treated as a private person. [*State v. O'Kelly*, 211 N.W. 2nd 589 (1973)] Wyoming did have a statute permitting Statewide pursuit, Wyo. Stat. §7-163 (1957), but Rule 56 of the Wyoming Rules of Criminal Procedure provided that this statute be superseded as of February 11, 1969. And in Illinois, the intra-State fresh pursuit power was presumed by law enforcement officials to be defined by case law or by opinions of the Attorney General. Upon further investigation, however, citations verifying these authorities were not found.

The full citations to relevant statutes are contained in Larry Wagner, "Patterns of State Laws Relating to Fresh Pursuit" (Bloomington, Indiana: Workshop in Political Theory and Policy Analysis, Police Services Study Technical Report Number 1, 1975).

Chapter IV

AGENCY SIZE AND SERVICE DELIVERY

Eliminate small departments! That is the solution to metropolitan police problems according to some commissions on government reorganization. Some recommend eliminating departments with 10 or fewer officers; others call for eliminating departments with 25 or fewer officers. Some even suggest that departments with as many as 50 officers are still too small. The call for larger police departments is based on several assumptions about the role of small departments in service delivery: (1) that small departments do not provide a full range of services to the communities they serve; (2) that small departments "waste" personnel by creating the need for separate administrations for each small agency; and (3) that small departments predominate in service delivery (especially for patrol). In this chapter, we present evidence that those assumptions are, by and large, incorrect.

We do not intend to suggest that all small departments are delivering the best possible police services. Undoubtedly, there is room for improvement. What we do find is that small departments do not generally cause the kinds of problems which have been attributed to them in reports by the President's Commission on Law Enforcement and Administration of Justice and several State planning agencies. Small departments may indeed be inappropriate for supplying some kinds of police services or for some types of service areas, but large departments may also be inappropriate for certain tasks and particular sorts of communities. For example, small departments may have more supportive contacts between police and citizens. It may also be easier to design police policies which are responsive to different communities within the metropolitan area if there are several smaller departments than it would be if there are a few or only one large department. The choice of agency size and organization should be made on the basis of the job to be done and the needs of those who are to be served.

AGENCY SIZE AND SERVICES PRODUCED

Some of the discussion of police agency size has centered around the notion of the "full-service" police department. Small departments are viewed as inadequate because they lack the resources to provide themselves with crime labs and detention facilities. They may have too few officers to justify their own training programs or full-time radio communications staff. Or they may have too few serious crimes reported to justify the employment of investigative specialists. The inability of small departments to supply such services, however, should not be interpreted as indicating that the services are not available to small departments and the communities they serve. With few exceptions, all direct police service producers in the 80 metropolitan areas not supplying their own auxiliary services have arrangements with other agencies to supply them with entry-level training, chemical analysis of evidence, pre-trial detention of suspected offenders, and radio communications. As we have seen in Chapter III, the assistance of investigative specialists from other agencies is also common.

Reliance on other agencies for auxiliary services is not limited to small departments. In fact, there is only one department in the 80 metropolitan areas producing *all* of the services we studied. Like the smaller agencies, most large departments obtain some auxiliary services from other producers. Large departments are more likely to conduct all of the direct services we studied, but even large departments are sometimes specialized and produce only one or two of these direct services.

Patrol is the only service not commonly regarded as potentially "specialized." Direct service agencies which are concerned only with traffic control are commonly viewed as specializing in traffic, and agencies whose primary activity is the investigation of reported crimes are seen as specializing in criminal investigation. In a similar way, there are some agencies which specialize in patrol, although they are commonly thought of as "limited service" rather than specialized agencies. These are mainly special district police such as those of parks or hospitals, but some small municipal police departments also fit this classification. Traffic control and criminal investigation are conducted in these patrol service areas by officers from other agencies with overlapping jurisdictions. Agencies specializing in

patrol may be effective in meeting the distinct needs of some parts of a metropolitan area for some particular *patrol* activity. There is no more reason for agencies specializing in patrol to supply other police services than there is for agencies specializing in traffic control to investigate homicide or agencies specializing in traffic accident investigation to patrol.

Most local police departments do not specialize in a single service, of course. Regardless of size, most local patrol agencies also supply their service areas with traffic control service—traffic patrol and accident investigation (Table 4.1). More than 90 percent of the municipal police departments with 11 or more officers supply all five of the direct services we examined. Smaller municipal police departments are less likely than larger agencies to conduct residential burglary investigation, and even less likely to conduct homicide investigation. County sheriffs' departments typically conduct investigations in their service areas.

As we saw in Chapter III, small agencies which do investigate homicides are quite likely to receive the assistance of investigative specialists from other agencies. Thus, service areas *patrolled* by small, local agencies are not without the services of investigative specialists. When serious crimes occur in these areas, investigators from other agencies coordinate their investigation with officers of the small patrol agency, or they conduct the entire investigation and the local patrol agency does not participate.

Almost all county police and sheriffs' departments that patrol also investigate reported crime. Fewer of these departments conduct traffic control services, although a majority do so.

TABLE 4.1 Production of Additional Services By Local Patrol Producer

Type of Local Patrol Producer and Number of Full-Time Sworn Officers	Number Reporting	Percent of Local Patrol Agencies Producing: Direct Police Services				Auxiliary Police Services			
		Traffic Patrol	Traffic Accident Investigation	Residential Burglary Investigation	Homicide Investigation	Radio Communications	Entry-Level Training	Adult Pre-Trial Detention	Chemical Analysis
Local Patrol Agencies Reporting	1159	93	90	83	69	70	6	12	1
Municipal Police Departments By Number of Full-Time Officers									
Part-Time Only	76	90	78	53	21	25	0	0	0
1 to 4	244	98	96	70	46	38	0	0	0
5 to 10	220	97	96	91	75	67	0	6	0
11 to 20	126	98	100	98	94	90	0	6	0
21 to 50	123	97	98	98	98	96	1	9	0
51 to 150	79	100	100	100	99	95	15	17	4
Over 150	48	100	100	100	100	94	81	15	10
County Police and Sheriffs By Number of Full-Time Officers									
1 to 4	3	100	100	100	100	100	0	100	0
5 to 10	5	60	80	100	100	100	0	80	0
11 to 20	16	69	50	88	88	94	0	81	0
21 to 50	28	68	61	100	100	97	4	96	7
51 to 150	27	67	63	100	96	100	19	85	0
Over 150	18	78	72	100	100	89	11	89	28
Other Local Patrol Producers By Number of Full-Time Officers									
Part-Time Only	6	67	50	17	17	50	33	0	0
1 to 4	28	75	36	25	7	54	7	0	0
5 to 10	53	91	74	59	34	72	0	0	0
11 to 20	27	82	70	70	33	89	7	0	0
21 to 50	28	93	82	79	50	86	4	0	0
51 to 150	4	100	100	75	75	100	0	0	0

Department size makes no difference in the services produced by county departments. Other local police agencies, including campus and other special district police, are less likely than either county or municipal police to conduct their own investigations of reported crime, but they are somewhat more likely than county agencies to be involved in traffic control. Larger campus and other special district agencies are somewhat more likely to conduct more direct police services, but the relationship of agency size to services produced is not as marked as it is for municipal police departments.

Fewer departments supply their own auxiliary services than supply direct services. Radio communications is the auxiliary service most commonly supplied by patrol agencies. Almost all county police and sheriffs' departments conduct their own radio communications regardless of agency size. For municipal police departments, campus police, and other agencies serving special districts, larger departments are more likely to conduct their own radio communications. It is important to note that many agencies—especially the smaller ones—have arrangements with other agencies to conduct radio communications for them during some parts of the day. In more than half of the 80 metropolitan areas, at least one patrol agency supplying its own radio communications also has an alternate supplier of this service. County sheriffs are an important supplier of radio communications. Communications centers specializing in this service have been established in some SMSAs. Municipal police and other local agencies also supply radio communications for each other. In some areas, time-sharing arrangements have been devised so that each of three or four small agencies has responsibility for radio communications for all of them during certain hours of the day.

Only the largest municipal police departments are likely to conduct their own entry-level training. Some of these departments also train police recruits for other police agencies in their areas. State and regional criminal justice training academies and universities, colleges, and technical institutes are other common producers of entry-level training. Entry-level training is required by more than 90 percent of the municipal police departments and county police and sheriffs' departments in the 80 SMSAs. Over 80 percent of all campus and other local police agencies also require entry-level training. The latter agencies are less likely to be subject to state requirements for recruit training.

County sheriffs' departments are the only type of local patrol agency likely to supply pre-trial detention. In most States, county sheriffs have the legal responsibility to maintain jails. Other arrangements are found, however. Connecticut has State jails, Kentucky and Pennsylvania have county jails which are independent of the sheriff, and in other metropolitan areas there are municipal or county jails not associated with direct police service agencies. A few of the larger municipal police departments also maintain their own jails, but they are the exception. County sheriffs' departments produce pre-trial detention in 62 of the 80 SMSAs and contribute over 70 percent of the total detention capacity. Specialized detention agencies serve 24 of the 80 metropolitan areas and contribute about one-fifth of the detention capacity. Municipal police departments produce pre-trial detention in 17 SMSAs and contribute less than one-tenth of the detention capacity. Detention is usually supplied on a county-by-county basis so that multi-county metropolitan areas have separate jails serving each of their counties. While county sheriffs' departments and specialized detention agencies typically supply detention services to all police agencies operating in the county, most municipal police department jails are used exclusively by those departments themselves.

Few local patrol agencies conduct chemical analysis of evidence. Even the largest agencies use other agencies' laboratories rather than employing experts to identify narcotics, blood, and other substances. State agencies are the most common suppliers of this auxiliary service. In some States, laboratory services are produced by the State police or State bureau of investigation. In others, a separate State crime lab has been established. The two types of arrangements are equally common in the 80 metropolitan areas we studied, and most patrol agencies obtain chemical analyses from State agencies. But there are also other arrangements. In the 20 metropolitan areas where they are found, municipal police department labs and sheriffs' department labs are used by other local agencies. In a few metropolitan areas, hospital laboratories are used as a common practice, and in four SMSAs, regional crime labs have been organized.

The "full-service" police department is certainly not a widely adopted model for metropolitan policing. Instead, even the largest local police agencies obtain auxiliary services from other agencies. Direct services are also sometimes divided among specialized producers.

Many small municipal, campus, and special district agencies are, in effect, patrol specialists. Their utility should not be judged on the basis of how many services they themselves produce; rather, they should be evaluated on the basis of whether their specialized patrol service is needed and whether there is a better way to meet the need.

Agency Size and Personnel Deployment

Small police departments are sometimes thought to make inefficient use of their employees. Each department requires its own chief, and even very small departments usually have assistant chiefs and others with titles which indicate management responsibilities. What observers often overlook, however, is the on-street presence of many police administrators, particularly in small departments. In departments with fewer than five full-time officers, the chief is a regular part of the patrol force. In somewhat larger departments, the chief may not patrol, but he still maintains supervisory contact with patrol operations. Rather than small departments removing officers from direct service activities and placing them in administrative assignments, the opposite appears to be the case. Smaller municipal patrol agencies have a lower proportion of their officers assigned to administration and a higher proportion assigned to patrol. Campus and special district police make similar kinds of assignments. County sheriffs' departments do not fit this pattern because of the greater administrative burden most of them have, regardless of size, from court related activities such as maintaining jails, serving civil processes, bailiff duty, and the record keeping which these entail.

Municipal, campus, and special district departments with 10 or fewer officers assign, on the average, more than 90 percent of their officers to patrol. Municipal departments with more than 150 officers average less than 60 percent of their officers assigned to patrol. As Figure 4.1 shows, the percentage of officers assigned to patrol decreases as agency size increases. The reverse is true of assignments to administrative services. But the decreases in patrol assignment are not equaled by the increases in administrative assignment. Larger departments are more likely to assign personnel to other direct service or auxiliary service tasks. Departments with more than 150 sworn officers assign, on the average, 15 percent of their sworn officers to criminal investigation, 8 percent to traffic control, and 3 percent to work with juveniles. These departments also average 13 percent of their officers assigned to administrative services, 2 percent to radio communications, and about 1 percent each to training, detention, and crime lab. The percentage figures show the proportionate difference in assignment, but they do not reveal the absolute differences. Fewer than 100 officers have full-time administrative assignments in the 467 full-time departments with 10 or fewer officers. The 48 departments with at least 150 officers together have more than 1,000 officers assigned to administrative services.

Administrative services are important. We do not intend to suggest that records, research, internal operations, legal assistance, and other staff services should be eliminated. But not all departments need to supply all of these, and full-time sworn employees may not be needed to conduct such activities in smaller departments. Small departments usually put their emphasis on getting officers out on patrol.

Agency Size and Patrol Density

Small municipal police departments generally supply a much higher density of patrol than do large municipal departments. The median citizen-to-patrol officer ratio at 10 P.M. is less than 2,400 to 1 for municipal departments with 5 to 10 officers and more than 4,200 to 1 for municipal departments with more than 150 officers. This means that in the smaller departments there are about 4 officers on patrol at 10 P.M. per 10,000 citizens, while there are approximately 2.4 officers on patrol at 10 P.M. per 10,000 citizens in the departments over 150 officers in size. As Table 4.2 shows, the larger the municipal police agency, the more residents each on-street patrol officer usually has to serve. While many larger municipal police departments have more sworn officers per 1,000 residents than do small departments, they are less able to translate this personnel advantage into as great an on-street patrol presence because of competing demands for officers for assignment to other duties. Larger municipal departments choose to assign a much lower proportion of their sworn personnel to patrol. They also place a lower proportion of those assigned to patrol out on the street. Through the use of part-time and supervisory personnel, smaller municipal departments field more patrol officers per full-time officers assigned to patrol than do larger departments.

Campus and other special district police producers achieve higher densities of patrol than all except the smallest municipal police departments. Many of the campus and other special dis-

trict police specialize in patrol. As a consequence, over half of their service areas have fewer than 1,800 residents per officer on patrol at 10 P.M., regardless of agency size.

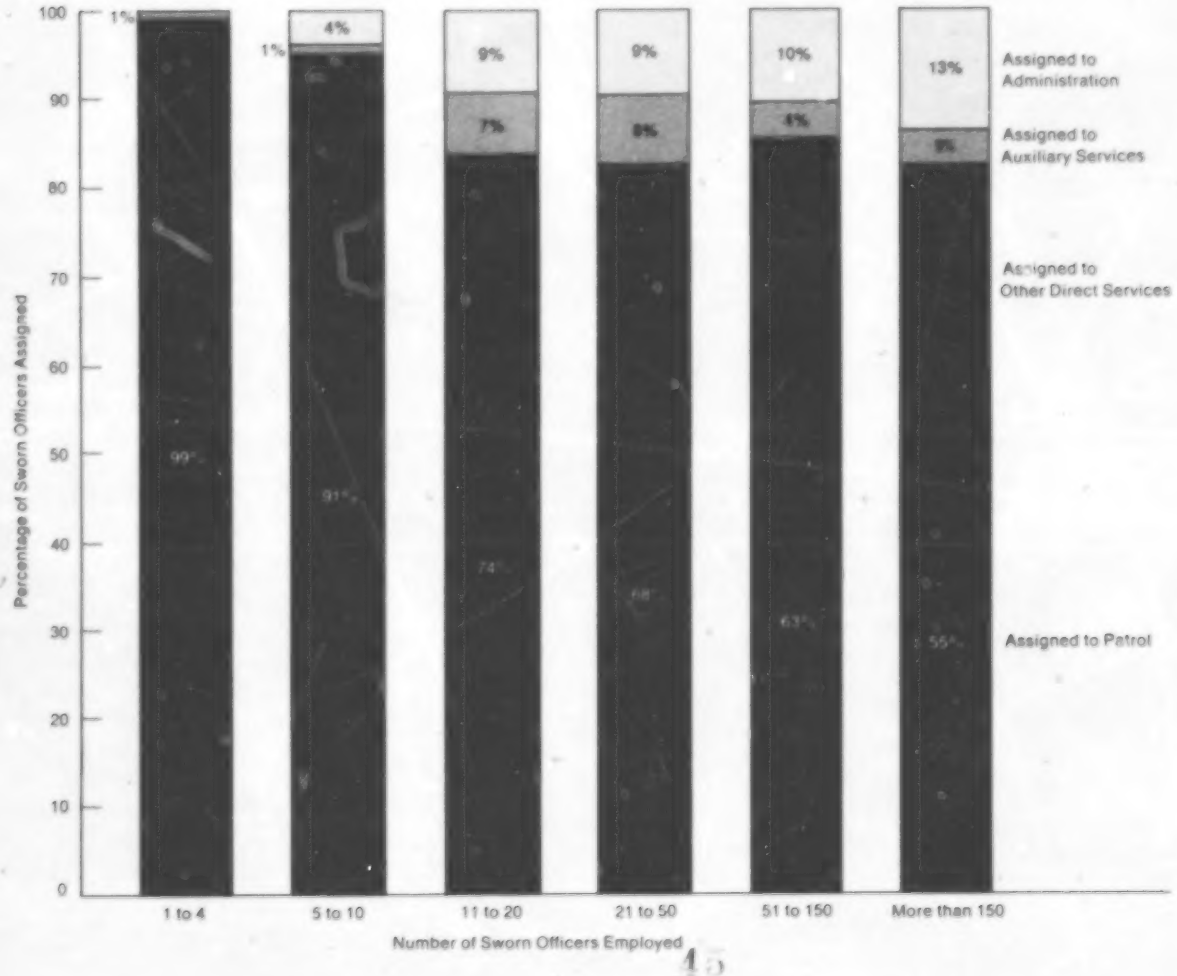
County police and sheriffs' departments, regardless of size, supply a much lower density of patrol than do municipal police departments. A number of the larger county patrol agencies have higher patrol densities than many of the smaller county patrol departments, but even these have more residents served by a single patrol officer than is common in service areas of the largest municipal police departments.

As mentioned above, county sheriffs' departments typically must assign officers to court related duties which are not shared by municipal police. Sheriffs' departments assign an average of 50 percent of their officers to patrol, 15 percent to jail supervision, and 15 percent to administrative services.

Those who urge elimination of small police departments usually assert that a consolidated agency would reduce the number of personnel needed or at least not require additional employees. These findings make that assertion questionable. The model for the consolidated agency is the large municipal police department. It is true that many of these might simply be enlarged through merger with their smaller neighboring agencies. But these larger municipal agencies put relatively *fewer* officers on patrol than do the small agencies they would replace.

FIGURE 4.1

Average Percent of Sworn Officers Assigned to Patrol, Other Direct Services, Auxiliary Services, and Administration by Size of Producer Municipal Police Agencies of Different Sizes



Therefore, it would seem that *more*, not fewer, officers would be needed to maintain current patrol densities in the areas now patrolled by the small departments. We have no evidence to contribute to the current debate about the *benefits* of having more officers on patrol. What this study does show, however, is that larger departments are not translating their relative personnel advantage into on-street presence.

DO SMALL POLICE AGENCIES DOMINATE SERVICE DELIVERY?

While there are indeed many small police departments serving metropolitan areas in the United States, it is inaccurate to maintain that small departments dominate service delivery. Small departments constitute the majority of local police agencies in many metropolitan areas. This has led some observers to conclude that they must be a major factor in metropolitan police service delivery, at least for patrol—the service most likely to be conducted by small police agencies. While small departments are more numerous than large departments, they employ only a small fraction of local patrol officers in most metropolitan areas and patrol for only a small fraction of the population of most SMSAs. Much effort is being directed at their elimination however, so they merit discussion here.

Small departments are numerous. In the 80 metropolitan areas we studied, more than half of the local police agencies have no more than 10 full-time sworn officers. One hundred and thirty-seven of these employ no full-time sworn officers. In contrast, there are only a few very large departments. Only 10 local police agencies in the 80 SMSAs employ more than 500 officers.

TABLE 4.2 Patrol Deployment and Density By Local Patrol Producers

Type of Producer and Number of Full Time Sworn Officers	Number of Producers Reporting	On-Street Patrol Force (10 P.M.)* Number of Officers On the Street		Number of Inhabitants** per Officer on the Street (1973 pop. est.)		Number of Inhabitants** per Full-Time Sworn Officer (1973 pop. est.)	
		Median	Inter-Quartile Range	Median	Inter-Quartile Range	Median	Inter-Quartile Range
Municipal Police Departments By Number of Full-Time Officers							
Part-Time Only	48	1	1 - 1	1107	613 - 1791	—	—
1 to 4	209	1	1 - 1	1623	886 - 2396	776	473 - 1373
5 to 10	209	2	1 - 2	2383	1533 - 3594	558	435 - 847
11 to 20	124	3	2 - 4	2877	2141 - 4047	594	448 - 749
21 to 50	121	5	4 - 6	3244	2364 - 4482	520	447 - 658
51 to 150	77	13	10 - 16	3985	2926 - 5718	576	454 - 691
Over 150	45	30	23 - 57	4256	3086 - 6017	502	427 - 581
County Police and Sheriffs By Number of Full-Time Officers							
1 to 4	2	—	1 - 2	—	328 - 8259	—	109 - 4129
5 to 10	5	2	1 - 2	7867	5820 - 10013	2248	970 - 2433
11 to 20	13	3	3 - 4	7756	3835 - 8978	1595	1291 - 2007
21 to 50	28	5	3 - 7	7224	2956 - 12217	1075	539 - 1330
51 to 150	27	8	6 - 13	5768	4821 - 8126	678	456 - 1044
Over 150	17	22	18 - 30	5985	4039 - 7191	459	423 - 731
Other Local Producers By Number of Full-Time Officers							
Part-Time Only	2	—	2 - 3	—	316 - 2010	—	—
1 to 4	10	1	1 - 1	1257	486 - 2124	726	331 - 2124
5 to 10	25	2	1 - 3	1346	745 - 1982	401	218 - 538
11 to 20	18	4	4 - 5	1268	782 - 2021	333	231 - 719
21 to 50	21	6	5 - 7	1770	1034 - 2894	468	238 - 622
51 to 150	3	8	7 - 18	1250	311 - 5764	179	71 - 568

* Only producers assigning officers at 10 P.M. are included. Several small departments do not assign officers at 10 P.M.; these are excluded from this table.

** This is the resident population of the *service area* patrolled by each department. As explained in Chapter I, this is often smaller than the population of a department's legal jurisdiction.

In general, county sheriffs' departments are larger than other types of local police agencies. Half of the county police and sheriffs' departments have at least 38 sworn officers. Only 14 percent of these agencies have 10 or fewer sworn officers. County police and sheriffs' departments are also more likely than other types of local direct service agencies to employ civilians. Over half the county police and sheriffs' departments have at least seven full-time nonsworn employees. These agencies are more likely than others to employ civilians because they are more likely to produce pre-trial detention and radio communications. These services, along with administrative services, are assignments most frequently given to nonsworn personnel. Most agencies of other types are small.

But, while small police agencies are the most common producers of patrol, most full-time sworn officers are employed by relatively large agencies. More than 50,000 full-time police officers are employed in the 80 metropolitan areas. Nearly 50 percent of these officers are employed by departments having more than 150 sworn officers. Twenty percent of the agencies producing patrol employ 80 percent of the full-time sworn officers. Police agencies with fewer than 10 full-time sworn officers—a full 50 percent of all agencies—employ only 5 percent of the full-time police officers in the 80 metropolitan areas. So, while the statement that America is a nation of small police forces is true in terms of the number of police agencies, it is also true that most police officers work in, and most Americans receive police services from, moderate- to large-sized police agencies.

Patrol agency size varies considerably from region to region (Table 4.3). Large variations also exist within each region and across agency types. Sheriffs' and county police departments tend, on the average, to be larger than the other types of local patrol producers; but municipal police departments, due to their prevalence, dominate all size ranges. For example, of the 67 local patrol producers having more than 150 full-time sworn officers, 48 (72 percent) are municipal police departments. Other local producers tend, in general, to be smaller than either municipal or county producers.

TABLE 4.3 Size of Local Patrol Producers By Region

Type of Patrol Producer	Northeast Regions			Midwest Regions		Southern Regions		Western Regions		
	1	2	3	5	7	4	6	8	9	10
Municipal Police Departments (Number)	(59)	(133)	(110)	(187)	(34)	(187)	(89)	(21)	(73)	(19)
Full-Time Personnel										
Median	18	20	3	5	2	10	8	10	21	5
Inter-Quartile Range	9 - 33	10 - 36	1 - 6	1 - 20	0 - 13	4 - 28	3 - 22	2 - 22	10 - 77	3 - 11
Full-Time Sworn										
Median	17	19	2	4	2	8	6	7	16	4
Inter-Quartile Range	8 - 30	9 - 35	1 - 6	1 - 16	0 - 9	4 - 22	3 - 17	1 - 18	8 - 51	2 - 10
County Police and Sheriffs (Number)	(0)	(5)	(2)	(23)	(4)	(27)	(18)	(4)	(8)	(5)
Full-Time Personnel										
Median	—	56	—	55	68	67	34	34	228	31
Inter-Quartile Range	—	41 - 100	32 - 82*	34 - 79	27 - 87	23 - 174	21 - 125	32 - 65	118-480	7 - 66
Full-Time Sworn										
Median	—	54	—	38	49	36	34	25	166	17
Inter-Quartile Range	—	38 - 80	29 - 62*	20 - 60	25 - 58	18 - 149	15 - 100	23 - 65	90 - 319	6 - 39
Other Local Producers (Number)	(10)	(11)	(10)	(21)	(2)	(36)	(24)	(5)	(27)	(0)
Full-Time Personnel										
Median	8	18	3	9	—	12	12	7	10	—
Inter-Quartile Range	7 - 11	4 - 21	3 - 20*	6 - 33	9 - 10*	7 - 22	6 - 30	5 - 13	5 - 20	—
Full-Time Sworn										
Median	8	15	3	8	—	10	9	7	8	—
Inter-Quartile Range	6 - 10	4 - 20	1 - 5*	6 - 26	7 - 10*	7 - 21	5 - 16	5 - 8	3 - 20	—

* In these cases, the full range is reported

The largest patrol-producing agencies of any type are found in California and Arizona (Region 9). Sheriffs' and county police departments are particularly large in that region. New England, New York and New Jersey, and the West (Regions 1, 2, and 9) tend to have larger municipal police departments than do other regions, while municipal departments tend to be very small in Pennsylvania and Virginia, the Midwest, and the Northwest (Regions 3, 5, 7, and 10).

Table 4.4 provides some further perspective on the debate over eliminating small municipal police departments. Small agencies are indeed quite common across the country. In the 80 metropolitan areas, nearly 60 percent of the municipal agencies employ 10 full-time sworn officers or fewer. Most of these agencies patrol, but small agencies by no means dominate metropolitan police patrolling.

In the 80 SMSAs, patrol officers from small municipal departments constitute only about 10 percent of the on-street patrol force at 10 P.M. In many regions this proportion is even lower. Only in Pennsylvania and Virginia (Region 3) and the Northwest (Region 10), do small departments employ 20 percent of the sworn officers. Complete elimination of all municipal patrol producers employing 10 or fewer officers would have a small effect on the way that patrol service is delivered in metropolitan areas as a whole. However, as we have seen, it would probably have a negative impact on the availability of patrol service to the residents of the parts of metropolitan areas that are supplied by the smaller producers. These service areas typically have more officers on patrol in relation to residents served.

AGENCY SIZE RECONSIDERED

It has often been argued that all police departments should be large enough to produce every type of police service. It has also been assumed that large police departments either produce all auxiliary services for themselves or do without. However, we have found that law enforcement agencies do not need to produce all police services themselves. There are many

TABLE 4.4 Municipal Police Departments By Size and Proportion of On-Street Patrol Force (10 P.M.)

	Nation-wide	Northeast Regions			Midwest Regions		Southern Regions		Western Regions		
		1	2	3	5	7	4	6	8	9	10
Number Reporting	(916)	(59)	(133)	(111)	(189)	(34)	(188)	(89)	(21)	(73)	(19)
Percent of Municipal Police Departments By Number of Full-Time Officers											
Part-Time Only	8	7	2	20	16	29	2	3	0	0	5
1 to 4	27	5	13	43	35	35	26	33	38	3	53
5 to 10	24	20	13	23	20	12	31	33	33	36	21
11 - 20	14	27	25	5	10	9	14	11	5	15	11
21 to 50	13	25	34	3	9	3	12	5	5	21	0
51 to 150	9	7	11	1	9	3	9	8	10	21	11
Over 150	5	9	2	5	3	9	6	8	10	6	0
Percent of On-Street Patrol Force (10 P.M.) From Municipal Police By Number of Full-Time Officers											
Part-Time Only	1	1	0	5	2	3	0	0	0	0	0
1 - 4	4	1	3	14	6	6	2	3	4	0	14
5 to 10	6	6	4	12	7	4	6	5	7	5	10
11 to 20	6	13	12	4	7	9	5	3	2	3	5
32 to 50	10	24	27	5	8	2	8	2	3	7	0
51 to 150	15	15	19	3	21	14	14	10	12	18	36
Over 150	30	36	19	40	18	38	32	42	36	26	0

Columns may not total 100 percent due to rounding errors.

specialized agencies available to supply auxiliary services. Not only do most large departments obtain some auxiliary services from other agencies, but many do not even produce all of the direct services for the areas they serve. Like smaller agencies, they often rely on specialized producers to supply some services to their service areas.

Smaller departments generally have *lower* proportions of personnel assigned to administration and higher proportions assigned to patrol. They typically put more officers on the street per thousand residents patrolled than do larger departments. But, while they put a disproportionately large number of officers on patrol and are the most common producers of patrol, municipal police departments with fewer than 10 full-time officers supply only about 10 percent of the total patrol force on the street. Eliminating small departments would, thus, have only a minimal effect on police patrol in most SMSAs, although the effect would probably be either to *reduce* on-street patrol presence or to *increase* the number of police officers employed.

Small departments can hardly be a major cause of ineffective or inefficient policing in most metropolitan areas. More often small departments are organized to supply increased levels of patrol activity and to direct patrol activities to the specific needs of their limited service areas. So parks, airports, hospitals, and commuter campuses, in addition to residential communities, have police departments which are usually small and usually concerned primarily with patrol. As such, the small department may be a very useful organizational alternative.

Chapter V

OPTIONS FOR ORGANIZING METROPOLITAN POLICING

Although a great deal has been written about the reorganization of police services delivery, surprisingly little information has been available on the various ways policing is actually organized. This report has described the arrangements for conducting patrol, traffic control, and criminal investigation in 80 small- to medium-sized metropolitan areas. Organizational arrangements for supplying police departments with chemical analysis of evidence, entry-level training of recruits, radio communications, and pretrial detention of suspects were also discussed. This information on current police services delivery organization challenges several assumptions which have been the basis of proposals for police reorganization. The overriding conclusion to be drawn from this report is that there are many alternative ways to organize the delivery of police services.

Those who have written about metropolitan police services have generally assumed that systematic ways of working together are not possible for individual police agencies. Bruce Smith expressed this view:

> *There is therefore no such thing in the United States as a police system, nor even a set of police systems within any reasonably accurate sense of the term. Our so-called systems are mere collections of police units having some similarity of authority, organization, or jurisdiction; but they lack any systematic relationship to each other.*[1]

Similarly, the President's Commission on Law Enforcement and Administration of Justice summarized this standard image in its report, *The Challenge of Crime in a Free Society*:

> *The machinery of law enforcement in this country is fragmented, complicated and frequently overlapping. America is essentially a nation of small police forces, each operating independently within the limits of its jurisdiction. The boundaries that define and limit police operations do not hinder the movement of criminals, of course. They can and do take advantage of ancient political and geographic boundaries, which often give them sanctuary from effective police activities.*
>
> *. . . coordination of activity among police agencies, even when the areas they work in are contiguous or overlapping tends to be sporadic and informal, to the extent that it exists at all.*[2]

Conventional wisdom holds that coordination and cooperation of activities can occur *only* under the direction of a single, overarching hierarchy. This assumption is clearly contradicted by the experience of many of the police agencies in the 80 metropolitan areas we studied. Many types of systematic relationships have been worked out among the agencies policing metropolitan areas. Agencies patrolling or controlling traffic for the same service area typically alternate their activities to avoid duplicating each other's work. Coordination of criminal investigations is a standard procedure for many police departments. Most direct service police agencies receive at least some auxiliary services from other agencies. Almost all local patrol agencies report giving and receiving emergency assistance.

The standard prescription that it is necessary to organize all service activities within a single, "full-service" police department is based more on abstract principles of bureaucratic organization than on examination of police experience. Police departments have worked out a variety of ways to cooperate. This is not to say that all divisions of labor among separate agencies are effective. There are occasional cases of confusion, noncooperation, and isolation between departments, but a department conducting a variety of police services may also have tense relationships among its specialized units. Since each metropolitan area presents a different combination of agencies, personnel, and resources,

an examination of the needs of each particular area is the best way to determine beneficial change.

The work of policing metropolitan areas in the United States is divided up in various ways. One sort of division is geographic. Different officers are assigned responsibility for serving different parts of the SMSA. In some instances, these officers are organized into separate departments. In other cases, the geographic assignments are made to officers within the same police department.

Division of labor in metropolitan policing is also achieved by assigning officers to particular services and restricting their activities to those services. For example, some officers are assigned to control traffic, others to patrol, and others to investigate reported crimes. In some places, different officers are assigned separately to traffic patrol and to traffic accident investigation. Similarly, there are service areas for which the officers investigating residential burglary are different from those investigating homicide. This kind of specialization is not practiced in all service areas, however. In some departments, general area patrol, traffic control, and criminal investigation are conducted by the same officer. Police generalists are found both in very small police agencies and in large departments using team policing concepts as organizational guidelines.

All metropolitan areas have both geographic and service-specific divisions of policing. Different officers are responsible for serving different parts of the SMSA. Usually these officers are employed and assigned by several different police agencies. At the same time, at least some parts of each SMSA have specialist officers responsible for producing traffic control or criminal investigation. Patrol specialists (officers conducting only general area patrol and no traffic or criminal investigation activities) are common in some metropolitan areas, but are not found in all SMSAs. In most SMSAs, some direct police service agencies are specialized, while others produce a variety of police services.

Auxiliary service production is similarly divided. There are a few police departments in which generalist police officers produce their own support services. The same officers are assigned to detention and to radio communications and may rotate to street duty which involves patrol, traffic control, and criminal investigation. But these arrangements are quite rare. Much more common is the department which obtains each auxiliary service from persons who specialize in the production of that service. These may be employees of the police agency using the auxiliary service, or they may be employed by another agency from which the police department obtains the support service. Radio communications is usually produced within the department being dispatched. Pre-trial detention, entry-level training, and chemical analysis of evidence are usually obtained from other agencies. In either case, however, the officers who use the auxiliary services in the conduct of patrol, traffic control, or criminal investigation do not also produce the support services. Other personnel produce the support services for the direct service officers to use as needed.

In many instances, the producers of auxiliary services supply numerous police departments—thus, in several of the 80 metropolitan areas a single crime lab and only one pre-trial detention facility serve all police departments in the area. In metropolitan areas with military bases, there are always at least two producers of these services because of the separate provision for auxiliary services by military agencies.

Whether it is *preferable* to have all service production facilities contained in a single department or to have departments organized along either geographic or service-specific lines is an issue which requires further study. While some criminal justice reformers think that having all services within the same department facilitates production of the separate services, we have found considerable inter-departmental communication, cooperation, and coordination of service.

The methods we used to study the organization of police services delivery should be useful to those considering reorganization of policing in specific metropolitan areas. Our first question was: "What police services do we want to know about?" Having answered that question, we determined which agencies produce these services for the metropolitan areas. Then, we examined the standard procedures for delivering each service. We determined which parts of each of the 80 metropolitan areas each agency served and asked whether there were certain places, times, or people in each area which the agency under study did not serve. Next, we explored whether any agencies did serve those not served by the first agency. In this way, we established the extent of service alternation, which is considerable for patrol and traffic control. We also asked whether each agency regularly worked with other agencies in conducting the services it supplied. This line of questioning revealed that

coordination is standard procedure for many departments conducting homicide investigation.

Using this approach, we find that the accepted picture of police services delivery organization is far too simple. There are, indeed, many police agencies serving most metropolitan areas, but they typically have different sorts of service responsibilities. Most metropolitan areas are served by some specialized agencies. Their officers conduct only one service or a few closely related services. We also find specialized patrol agencies serving campuses, housing authorities, hospitals, parks, airports, and small municipalities. These agencies supplement the work of departments conducting a broader range of police services.

Evaluation of these alternative ways of organizing the delivery of police services in metropolitan areas requires detailed study of the operations of police agencies. How do the service-related activities of specialized agencies differ from those of general service agencies conducting the same service? How do communications among officers in different agencies differ from communications among officers in different divisions of the same agency? Do these differences in organization affect the kinds of service citizens receive from police? Answers to these questions should be taken into account in any recommendations for reorganizing metropolitan police services.

Researchers have started to investigate some of these questions, but our general knowledge about the relationship of organization to performance is still quite sketchy. Knowledge about the specific problems in communication, coordination, and cooperation within and between police agencies in a particular metropolitan area is, however, essential for informed recommendations about police reorganization in that SMSA. Organizational arrangements which work well for some services may be poorly suited for other services, and arrangements which are appropriate to the needs of one metropolitan area may be quite inappropriate for another. Reorganization planning must take into account the different kinds of resources needed to produce different police services as well as the unique service delivery patterns and the problems of the particular metropolitan area.

NOTES TO CHAPTER V

1. Bruce Smith, *Police Systems in the United States* (New York: Harper & Brothers Publishers, 1949), p. 22.

2. President's Commission on Law Enforcement and Administration of Justice, *The Challenge of Crime in a Free Society* (Washington, D.C.: Government Printing Office, 1967), p. 119.

Appendix A

GLOSSARY OF TERMS

AGENCY An organization which, under a direct legal relationship to a governing authority, has its own budget and personnel. Agency refers to the entire organization, regardless of its regional divisions or the number of metropolitan areas it serves. An agency is not to be confused with a producer, that part of an agency serving a specified geographic region. The distinction is illustrated in the Federal Bureau of Investigation, a single *agency* producing one or more services in 41 of the 80 metropolitan areas we studied. The total number of FBI producers in the study areas is, therefore, 41.

ALTERNATION An organizational arrangement among two or more producers which serve the same service recipient but systematically divide their production activities over space, over time, or among clientele. For example, alternation in space for traffic patrol occurs in a town where the State police patrol all State and Federal highways within the city limits and the town police patrol all other public thoroughfares.

AUXILIARY PRODUCER Any agency or part of an agency which conducts activities designed to help police departments supply direct police services. Producers need not necessarily interact with citizens to produce auxiliary services (for example, training, lab analysis).

AUXILIARY SERVICE An activity (such as dispatching, chemical analysis, training, detention) designed to help police departments supply direct police services (such as general patrol, traffic patrol, criminal investigation) to citizens.

COORDINATION An organizational arrangement among two or more departments serving the same service recipients. In a coordinated arrangement the participating departments interact to produce the service. An example of coordination in criminal investigation occurs when several departments' officers work on a case, sharing leads and maintaining a single case record.

DIRECT PRODUCER Any agency or part of an agency which conducts activities designed to influence the safety of the citizens it serves and which does so through direct interaction with the citizens. In this study, a direct producer is any agency or part of an agency which performs general area patrol, traffic patrol, traffic accident investigation, or criminal investigation.

DIRECT SERVICE An activity or set of related activities performed by officers having special powers of arrest and designed to influence the safety of the people in its service area. The service is produced by officers directly interacting with citizens (e.g., traffic patrol, criminal investigation).

DUPLICATION A situation in which a police department or service area receives a service from two or more producers without coordination or alternation.

ENCLAVE A territorially distinct area served by one police department, but also included in the jurisdiction of another police department.

GENERAL AREA PATROL Organized surveillance of public places within a specified territory and response to reports of suspected criminal acts to prevent crime, apprehend offenders, or maintain public order.

GOVERNING AUTHORITY A set of officials and procedures for determining provision of service. For example, a city council and the ordinances it enacts constitute the governing authority for a municipal police department.

INTER-QUARTILE RANGE A range of values (e.g., number of hours of training required) for a distribution of cases (e.g., police departments) starting, at the lower end, at the value of the case in the 25th percentile of the distribution and ending, at the upper end, at the value of the case in the 75th percentile of the distribution. Thus, the inter-quartile range shows the value limits of the middle 50 percent of the cases in a distribution.

MEDIAN A value in an ordered set of values below and above which there is an equal number of cases.

PATROL (See GENERAL AREA PATROL)

PRODUCER An agency or that part of an agency which supplies a service to a recipient within an SMSA. For example, a State highway patrol may provide traffic patrol to service areas in all SMSAs in its State. When the State highway patrol is referred to as a producer for an SMSA, only that part of the agency and those personnel in that part of the agency serving the SMSA are included. When the State highway patrol is referred to as an agency, the entire organization and all its personnel are included. See AGENCY.

REGULAR PRODUCER An agency or part of an agency which supplies service on a regular basis to service areas (in the case of direct services) or other agencies (in the case of auxiliary services). There are four types of regular production:

1) Sole producer for service areas or direct police agencies
2) Coordination
3) Duplication
4) Alternation

SERVICE AREA A portion of an SMSA having at least 100 residents, some way of making collective decisions about police services in the area, and a distinct legal arrangement with a producer of a direct police service. Thus, for each direct service, the population of the metropolitan area is divided into mutually exclusive service areas, each served by one or more producers. The service areas for one direct service may differ from the service areas for another direct service since a community of people may have, for example, one arrangement for patrol and another for criminal investigations.

SMSA (Standard Metropolitan Statistical Area) A designation specified by the U.S. Bureau of the Census to systematically identify metropolitan areas in the United States. An SMSA is defined (except in New England States) as a county or group of contiguous counties that contains at least one central city of 50,000 inhabitants or more or several cities with a combined population of at least 50,000. Contiguous counties are included in a SMSA if they meet criteria related to social and economic relationships to the central city. In the New England States, SMSAs consist of clusters of contiguous cities and towns which meet similar criteria.

SWORN POLICE Any individual given extraordinary power of arrest by virtue of statutory or other legally valid authorization.

TRAFFIC CONTROL The set of producer activities related to traffic patrol and traffic accident investigation.

Appendix B

THE 80 METROPOLITAN AREA SAMPLE

	SMSA Population Density (Persons per Square Mile)	Estimated SMSA Population (1973)
Region 1		
Brockton/Massachusetts	1,157	202,985
Meriden/Connecticut	2,332	56,686
New Bedford/Massachusetts	1,075	153,602
New Britain/Connecticut	1,729	145,037
Norwalk/Connecticut	1,668	120,135
Pittsfield/Massachusetts	569	79,059
Waterbury/Connecticut	954	216,476
Worcester/Massachusetts	728	347,778
Region 2		
Paterson-Clifton-Passaic/ New Jersey	3,188	1,355,437
Rochester/New York	381	891,581
Trenton/New Jersey	1,333	315,489
Vineland-Milleville-Bridgeton/ New Jersey	243	146,692
Region 3		
Altoona/Pennsylvania	255	136,285
Erie/Pennsylvania	324	264,990
Newport News-Hampton/Virginia	1,155	302,206
Reading/Pennsylvania	344	305,064
Roanoke/Virginia	599	190,324
Scranton/Pennsylvania	516	235,037
Region 4		
Albany/Georgia	277	95,017
Asheville/North Carolina	221	148,800
Birmingham/Alabama	272	755,827
Charleston/South Carolina	148	312,447
Fayetteville/North Carolina	324	216,230
Greensboro-Winston-Salem-High Point/North Carolina	274	630,708
Greenville/South Carolina	233	324,237
Huntsville/Alabama	169	229,753
Lexington/Kentucky	623	184,604
Nashville/Tennessee	336	555,539
Orlando/Florida	352	515,160

Owensboro/Kentucky	172	81,157
Tampa-St. Petersburg/Florida	777	1,164,301
Tuscaloosa/Alabama	87	121,826
West Palm Beach/Florida	172	412,075
Region 5		
Akron/Ohio	752	677,130
Bay City/Michigan	262	119,037
Bloomington-Normal/Illinois	89	114,842
Champaign-Urbana/Illinois	163	163,806
Decatur/Illinois	216	124,742
Gary-Hammond-East Chicago/ Indiana	675	640,777
Grand Rapids/Michigan	380	552,917
Hamilton/Ohio	480	237,348
Jackson/Michigan	205	144,922
Kenosha/Wisconsin	434	120,841
La Crosse/Wisconsin	178	82,725
Lafayette-West Lafayette/Indiana	219	111,768
Rockford/Illinois	339	271,150
Springfield/Illinois	184	167,737
Springfield/Ohio	391	157,520
Terre Haute/Indiana	117	175,372
Region 6		
Albuquerque/New Mexico	270	353,957
Austin/Texas	292	341,776
Baton Rouge/Louisiana	621	305,064
El Paso/Texas	340	390,046
Galveston-Texas City/Texas	426	176,025
Lawton/Oklahoma	100	102,165
Midland/Texas	70	65,937
Monroe/Louisiana	181	121,818
Odessa/Texas	101	93,072
San Angelo/Texas	47	73,150
San Antonio/Texas	441	932,069
Tulsa/Oklahoma	126	489,382
Waco/Texas	148	152,899
Wichita Falls/Texas	83	125,810
Region 7		
Cedar Rapids/Iowa	228	164,275
Des Moines/Iowa	464	294,448
St. Joseph/Missouri	215	86,896
Springfield/Missouri	226	165,598
Region 8		
Colorado Springs/Colorado	109	283,688
Great Falls/Montana	31	84,519
Provo-Orem/Utah	68	158,119
Pueblo/Colorado	49	124,193

Region 9		
Bakersfield/California	40	335,570
Oxnard-Simi Valley-Ventura/ California	203	419,903
Phoenix/Arizona	103	1,126,607
Salinas-Seaside-Monterey/ California	74	255,479
San Jose/California	820	1,156,738
Santa Barbara-Santa Maria-Lompoc/California	97	276,761
Vallejo-Fairfield-Napa/ California	156	262,827
Region 10		
Boise/Idaho	108	127,874
Salem/Oregon	98	199,531
Total: 80 SMSAs		**24,321,330**

Appendix C

OTHER REPORTS OF THE POLICE SERVICES STUDY

Copies of the following technical reports are available at the indicated prices (postpaid) by writing to the Publications Secretary, Workshop in Political Theory and Policy Analysis, Indiana University, Morgan Hall 121, Bloomington, Indiana 47401.

T-1 Larry Wagner. "Patterns of State Laws Relating to 'Fresh Pursuit'." [$1.00]

T-2 Larry Wagner and Thomas Kramer, "A Symposium of Recruitment Systems for Peace Officers." [$1.00]

T-3 Thomas Kramer and Larry Wagner, "Statutory Provisions Regarding Entry-Level Training of Peace Officers." [$1.00]

T-4 Elinor Ostrom. "A Historical Review of Entry-Level Training Legislation." [$1.00]

T-6 Thomas Kramer, Frank Anechiarico, and Larry Wagner. "State Statutory Authorization of the Law Enforcement Functions of State, County, and Municipal Agencies." [$5.50]

T-7 Phillip M. Gregg. "Personnel Practices in the Police Services Industry." [$3.25]

T-10 Eric Scott. "College and University Police Agencies." [$1.75]

T-12 Roger B. Parks. "Police Patrol in Metropolitan Areas—Implications for Restructuring the Police." [$1.50]

T-13 Roger B. Parks. "Victims' Satisfaction With Police: The Response Factor." [$1.75]

T-14 Eric Scott. "Determinants of Municipal Police Expenditures: A Review Essay." [$2.00]

T-15 John P. McIver. "Measures of Metropolitan Police Industry Structures - Service Structure Matrices for the Albany/Georgia SMSA." [$1.00]

T-16 Elinor Ostrom. "Police Consolidation and Economies-of-Scale: Do They Go Together?" [$1.00]

T-17 Gordon P. Whitaker. "Size and Effectiveness in the Delivery of Human Services." [$1.00]

T-19 Elinor Ostrom, Roger B. Parks, and Gordon P. Whitaker. "A Public Service Industry Approach to the Study of Police in Metropolitan Areas." [$1.75]

T-25 Frances P. Bish. "The Limits of Organizational Reform."

[$1.75]

T-29 Gordon P. Whitaker and Stephen Mastrofski. "Equity in the Delivery of Police Services."

[$1.75]

Fact sheets are available free of charge by writing to the Publications Secretary, Workshop in Political Theory and Policy Analysis, Indiana University, Morgan Hall 121, Bloomington, Indiana 47401.

F-1 Elinor Ostrom. "The Topeka Major Case Squad."

F-2 Nancy M. Neubert. "The Major Investigative Team of Polk County."

F-3 Stephen Mastrofski. "The Tuscaloosa County Homicide Unit."

F-4 Nancy M. Neubert. "A Comparison of Major Case Squads in Four Metropolitan Areas."

F-5 Staff Research Unit, Kansas City/Missouri Police Department. "Kansas City Area Metro Squad."

F-6 Nancy M. Neubert. "The State Police of Crawford and Erie Counties."

F-7 Gary Miller. "The Universal City Joint Dispatching System."

F-8 Eric Scott. "The Intra-County Major Case Investigation Unit of Dane County."

F-9 John P. McIver. "The Worchester County Fraudulent Check Association: Community Cooperation in Law Enforcement."

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